

# Program

23<sup>rd</sup> ANNUAL MEETING OF THE  
**VISION SCIENCES SOCIETY**  
MAY 19-24 2023, ST. PETE BEACH FL.



# Welcome to VSS 2023!



We're thrilled to be back to a fully in-person meeting with attendance approaching pre-pandemic levels. Let's look at some of the highlights.

Of course, the foundation of the meeting is the scientific content. This year VSS features 215 [talk presentations](#) and 1084 [posters](#). For the first time, the Undergraduate Just-in-Time poster sessions will be in-person on Saturday and Monday so please come out to meet and support our undergraduates.

Considering the proliferation of artificial intelligence algorithms and the new challenges they present to society, this year's [Keynote Lecture](#) on Saturday is especially timely: Hany Farid will be talking about "Creating, (Mis)using, and Detecting Deep Fakes".

Bring your dancing shoes and be ready to glow on Tuesday night — [Club Vision](#) is back!

The [Awards Session](#) on Monday celebrates the accomplishments of three remarkable vision scientists and provides an opportunity for them to present their work. The 2023 Davida Teller Award will be presented to Mary A. Peterson for her pioneering research in figure-ground segmentation. The Ken Nakayama Medal will be awarded to Bill Warren in honor of his research into perception and action in real and virtual worlds. The Elsevier/VSS Young Investigator Award will go to Brian Anderson to honour his insights into the relationship between visual attention and reward.

VSS provides many training, mentorship, and career-building opportunities and aims to ensure they are beneficial to members from diverse backgrounds. The Student Postdoc Advisory Committee (SPC) is hosting an Accessibility Event on "[How to Make Accessible Scientific Presentations](#)" on Sunday. We encourage everyone to attend, especially trainees, to learn how to optimize the reach of posters and talks to all in the community.

This year the SPC and [Females of Vision et al. \(FoVea\)](#) are working together to host a two-part Career Transitions Workshop. The workshop features an [Early Career Panel](#) of researchers who have transitioned between a variety of career paths, followed by a [Round Table Discussion](#) with smaller groups. A special [Symposium on Critical Perspectives on Vision Science](#) will address how the field can overcome historic biases in domains like participant selection and development of stimuli & methods. An [Inclusivity Roundtable](#) on Saturday will provide an opportunity for people from a range of backgrounds to network. US-based researchers can learn more about American funding opportunities in the [US Funding Workshop](#) on Sunday. Trainees from all countries can also benefit from a Workshop on [Strategies for Funding Your Research Ideas Around the Globe](#) on Saturday.

Students and postdocs can sign up to participate in [Meet the Professors](#) on Monday and [Connect with Industry](#) on Tuesday. The [Undergraduate Meet-and-Greet](#) on Monday provides a friendly opportunity for undergraduate students to meet one another and discuss career options with graduate students and faculty members. The [Canadian Vision Science Social](#) on Sunday facilitates networking with colleagues north of the border. The [Visibility](#) event on Friday brings together LGBTQ+ scientists and friends. Longstanding satellites are returning – [Computational and Mathematical Models in Vision \(MODVIS\)](#), [Philosophy of Vision Workshop \(phiVis\)](#), and events hosted by [VPixx](#) and [WorldViz](#). In addition, this year's VSS includes a new [Pre-Data-Collection Poster Session](#) on Monday where researchers can discuss research projects in the planning stage. All events are open to everyone.

All registrants are encouraged to join the [Opening Night Reception](#) on Friday as well as [Demo Night](#) and the preceding beach barbeque on Monday.

In the [Public Lecture](#), Rowan Candy will discuss “Seeing Through the Eyes of a Baby” offsite at the Enoch Davis Centre.

Although we have eliminated the online component of the meeting, V-VSS, we have nevertheless preserved some of the benefits we gained from the online and hybrid meetings over the past three years. All talks will be recorded and available online, and poster presenters have the opportunity to upload their posters for current members and registrants to access. These resources are available online for all members through August 31.

VSS would not be possible without the tremendous amount of work that goes on behind the scenes by many dedicated individuals. The Society is incredibly fortunate to have the longstanding experience, initiative, creativity, professionalism, and dedication of our organizers, Meeting Perfect, particularly Shaune Wilson (President), Shawna Lampkin, Jeff Wilson, and Lily Carrick. Their hard work and proficiency lives up to the ideals conveyed by the company name. The conference also relies on the dedicated service of our Board of Directors – Geoff Boynton, Rowan Candy, Anya Hurlbert, Krystal Huxlin, Eileen Kowler, Mike Landy, Shin'ya Nishida, and Ruth Rosenholtz. As the number of events and initiatives have grown over the years, this team has dedicated untold time to optimize the meeting. In addition, past presidents Eileen Kowler and Laurie Wilcox have been invaluable sources of wise advice. VSS also benefits tremendously from the service of many volunteers, including the SPC, the DEI Advisory Committee, Awards Committees, FoVea, and abstract reviewers.

We are also grateful to the National Eye Institute for providing travel support to 75 award winners, Elsevier for their continued support of the International Travel Awards and Young Investigator Awards, and our corporate [Sponsors](#) and [Exhibitors](#) for their ongoing contributions.

Jody Culham

VSS President, 2022-23

April 2023

# Schedule of Events

## Thursday, May 18, 2023

9:00 am - 6:00 pm	Computational and Mathematical Models in Vision (MODVIS)	Satellite	Blue Heron
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## Friday, May 19, 2023

8:00 am - 6:00 pm	Registration Open	Registration	Grand Palm Colonnade
9:00 am - 11:30 am	What's (not) in a name: Guidelines for replicable projector-based vision experiments Organized by VPixx Technologies	Satellite	Jasmine/Palm
9:00 am - 12:00 pm	Computational and Mathematical Models in Vision (MODVIS)	Satellite	Blue Heron
11:30 am - 12:00 pm	Coffee Break	Break	Garden Courtyard
11:30 am - 2:30 pm	Lunch (on your own) cash lunch available in Courtyard	Break	Garden Courtyard
12:00 pm - 2:00 pm	Critical Perspectives On Vision Science: Towards Unbiasing Our Methods and Role in Knowledge Production	Symposium	Talk Room 1
12:00 pm - 2:00 pm	How does the brain combine generative models and direct discriminative computations for visual inference?	Symposium	Talk Room 2
2:00 pm - 2:30 pm	Coffee Break	Break	Garden Courtyard
2:30 pm - 4:30 pm	The Active Fovea	Symposium	Talk Room 1
2:30 pm - 4:30 pm	The development of categorical object representations: bridging visual neuroscience and deep learning	Symposium	Talk Room 2
4:30 pm - 5:00 pm	Coffee Break	Break	Garden Courtyard
5:00 pm - 7:00 pm	Object representations in the parietal cortex	Symposium	Talk Room 1
5:00 pm - 7:00 pm	Continuous psychophysics	Symposium	Talk Room 2
7:00 pm - 9:30 pm	Opening Night Reception	Social	Beachside Decks
8:30 pm - 9:30 pm	Visibility: A Gathering of LGBTQ+ Vision Scientists and Friends	Satellite	Garden Courtyard

## Saturday, May 20, 2023

7:30 am - 6:45 pm	Registration Open	Registration	Grand Palm Colonnade
7:45 am - 8:45 am	Morning Coffee & Continental Breakfast	Break	Garden Courtyard & Pavilion
8:00 am - 5:30 pm	Exhibits Open	Exhibits	Pavilion
8:15 am - 9:45 am	Face Perception: Disorders, individual differences, and social cognition	Talk Session	Talk Room 1
8:15 am - 9:45 am	Perceptual Organization: Bistability, representation	Talk Session	Talk Room 2
8:30 am - 12:30 pm	<p>Saturday Morning Posters</p> <p>Visual Search: Features, models, neural; Attention: Temporal, divided; Binocular Vision: Clinical; Plasticity and Learning: Clinical applications; Aging; Attention: Endogenous, exogenous; Spatial Vision: Perceptual properties in health and disease</p>	Poster Session	Banyan Breezeway
8:30 am - 12:30 pm	<p>Saturday Morning Posters</p> <p>Temporal Processing: Duration, timing perception; Perception &amp; Action: Reaching, aiming, interception; Visual Memory: Long term memory; Motion: Models, neural mechanisms; Multisensory Processing: Visuo-haptic; Perception and Action: Navigation and flow in virtual environments</p>	Poster Session	Pavilion
9:45 am - 10:30 am	Coffee Break	Break	Garden Courtyard & Pavilion
10:45 am - 12:30 pm	Materials, Objects and Perception	Talk Session	Talk Room 1
10:45 am - 12:30 pm	Eye Movements: Perception, cognition	Talk Session	Talk Room 2
12:30 pm - 2:30 pm	Lunch (on your own) cash lunch available in Courtyard	Break	Grand Palm Colonnade
12:45 pm - 2:15 pm	Virtual Reality + Eye Tracking for Research Organized by WorldViz VR	Satellite	Blue Heron
12:45 pm - 2:15 pm	Inclusivity Roundtables VSS Diversity event	Networking	Jasmine/Palm
12:45 pm - 2:15 pm	VSS Workshop for PhD Students and Postdocs Strategies for Funding your Research Ideas Around the Globe	Student	Sabal/Sawgrass
2:30 pm - 4:15 pm	Development: Infancy	Talk Session	Talk Room 1
2:30 pm - 4:15 pm	Artificial neural networks and vision	Talk Session	Talk Room 2
2:45 pm - 6:45 pm	<p>Saturday Afternoon Posters</p> <p>Face Perception: Individual differences; Attention: Top-down, reward; Face Perception: Emotion; Color, Light and Materials: Cognition; Color, Light and Materials: Lightness, brightness; Undergraduate Just-In-Time 1</p>	Poster Session	Banyan Breezeway

2:45 pm - 6:45 pm	<b>Saturday Afternoon Posters</b> Eye Movements: Perception, remapping; 3D: Cues and integration; Attention: Affect, threat; Spatial Vision: Crowding and eccentricity; Binocular Vision: Disparity processing; Object Recognition: Reading; Perception and Action	Poster Session	Pavilion
4:15 pm - 5:00 pm	Afternoon Coffee & Snack	Break	Garden Courtyard & Pavilion
5:15 pm - 6:45 pm	<b>Intuitive Physics and Event Perception</b>	Talk Session	Talk Room 1
5:15 pm - 6:45 pm	<b>Temporal Processing</b>	Talk Session	Talk Room 2
7:15 pm - 8:15 pm	<b>Keynote Address given by Hany Farid</b> Creating, (Mis)using, and Detecting Deep Fakes	Keynote	Talk Room 1-2
<b>Sunday, May 21, 2023</b>			
7:30 am - 6:45 pm	<b>Registration Open</b>	Registration	Grand Palm Colonnade
7:45 am - 8:45 am	Morning Coffee & Continental Breakfast	Break	Garden Courtyard & Pavilion
8:00 am - 5:30 pm	<b>Exhibits Open</b>	Exhibits	Pavilion
8:15 am - 9:45 am	<b>Perceptual Organization: Motion, texture</b>	Talk Session	Talk Room 1
8:15 am - 9:45 am	<b>Multisensory Processing</b>	Talk Session	Talk Room 2
8:30 am - 12:30 pm	<b>Sunday Morning Posters</b> Visual Search: Eye movements, attention, individual differences; Attention: Spatial; Attention: Objects; Face Perception: Experience, learning, and expertise; Attention: Cueing, inattention	Poster Session	Banyan Breezeway
8:30 am - 12:30 pm	<b>Sunday Morning Posters</b> Perceptual Decision-Making; Eye Movements: Saccades and pursuit; Object Recognition: Visual preference, features and objects; Spatial Vision: Neural mechanisms; Color, Light and Materials: Surfaces, materials, constancy; Object Recognition: Neural organization and representations	Poster Session	Pavilion
9:45 am - 10:30 am	Coffee Break	Break	Garden Courtyard & Pavilion
10:45 am - 12:30 pm	<b>Plasticity and Learning 1</b>	Talk Session	Talk Room 1
10:45 am - 12:30 pm	<b>Perception and Action: Reach, grasp, walk</b>	Talk Session	Talk Room 2
12:30 pm - 2:30 pm	<b>Canadian Vision Science Social</b> Sponsored by the York Centre for Vision Research and VISTA	Satellite	Sabal/Sawgrass
12:30 pm - 2:30 pm	Lunch (on your own) cash lunch available in Courtyard	Break	Garden Courtyard

1:00 pm - 2:00 pm	<a href="#">Accessibility event: how to make accessible scientific presentations</a> Organized by the Student-Postdoc Advisory Committee (SPC)	Workshop	Blue Heron
1:00 pm - 2:00 pm	<a href="#">US Funding Workshop</a>	Workshop	Jasmine/Palm
1:00 pm - 2:00 pm	<a href="#">VSS Public Lecture given by T. Rowan Candy</a> Seeing through the eyes of a baby	Other	Offsite
2:30 pm - 4:15 pm	<a href="#">Object Recognition: Artificial neural networks, models</a>	Talk Session	Talk Room 1
2:30 pm - 4:15 pm	<a href="#">Visual Search: Attention, memory</a>	Talk Session	Talk Room 2
2:45 pm - 6:45 pm	<a href="#">Sunday Afternoon Posters</a> Development: Neural mechanisms and eye movements; Visual Working Memory: Interference; Visual Working Memory: Attention, load and capacity; Eye Movements: Visual Impairment; Attention: Individual differences; Motion: Local, in depth; Perceptual Decision-Making: Confidence	Poster Session	Banyan Breezeway
2:45 pm - 6:45 pm	<a href="#">Sunday Afternoon Posters</a> Binocular Vision: Integration and rivalry; Perception and Action: Navigation and flow; 3D: Shape; Perceptual Organization: Shape, figure/ground, occlusion; Plasticity and Learning: Statistical learning; Plasticity and Learning: Tasks, models; Face Perception: Insights from artificial neural networks	Poster Session	Pavilion
4:15 pm - 5:00 pm	Afternoon Coffee & Snack	Break	Garden Courtyard & Pavilion
5:15 pm - 7:15 pm	<a href="#">Attention: Mechanisms and models</a>	Talk Session	Talk Room 1
5:15 pm - 7:15 pm	<a href="#">Color, Light and Materials: Cones to cognition</a>	Talk Session	Talk Room 2
7:30 pm - 8:30 pm	<a href="#">Career Transitions Workshop, Part 1: Early Career Panel</a> Organized by the VSS Student-Postdoc Advisory Committee (SPC)	Workshop	Jasmine/Palm
8:45 pm - 9:45 pm	<a href="#">Career Transitions Workshop, Part 2: Where do I go from here? Round table Discussion</a> Organized by Females of Vision et al (FoVea)	Satellite	Garden Courtyard
<b>Monday, May 22, 2023</b>			
7:45 am - 8:45 am	Morning Coffee & Continental Breakfast	Break	Garden Courtyard & Pavilion
7:45 am - 1:30 pm	<a href="#">Registration Open</a>	Registration	Grand Palm Colonnade
8:00 am - 12:30 pm	<a href="#">Exhibits Open</a>	Exhibits	Pavilion
8:15 am - 9:45 am	<a href="#">Spatial Vision</a>	Talk Session	Talk Room 1
8:15 am - 9:45 am	<a href="#">Motion: Neural mechanisms, models, perception</a>	Talk Session	Talk Room 2

8:30 am - 12:30 pm	<b>Monday Morning Posters</b> Scene Perception: Spatiotemporal factors; Attention: Features; Attention: Temporal, templates, memory; Object Recognition: Models; Image Preference, Statistics and Aesthetics; Undergraduate Just-In-Time 2	Poster Session	Banyan Breezeway
8:30 am - 12:30 pm	<b>Monday Morning Posters</b> Visual Working Memory: Space, features, objects; Multisensory Processing: Audio-visual, visuo-vestibular; Visual Working Memory: Neural mechanisms; Visual Working Memory: Serial dependence; Eye Movements: Individual differences, novel measurement	Poster Session	Pavilion
9:45 am - 10:30 am	Coffee Break	Break	Garden Courtyard & Pavilion
10:45 am - 12:15 pm	<b>Development: Disorders</b>	Talk Session	Talk Room 1
10:45 am - 12:15 pm	<b>3D: Disparity and shape</b>	Talk Session	Talk Room 2
12:30 pm - 2:00 pm	<b>VSS Awards Session</b> Davida Teller Award, Ken Nakayama medal, Young Investigator talks	Award	Talk Room 2
12:30 pm - 2:30 pm	Lunch (on your own) cash lunch available in Courtyard	Break	Garden Courtyard
2:00 pm - 4:00 pm	<b>Pre-Data-Collection Poster Session</b>	Satellite	Jasmine/Palm
2:30 pm - 3:30 pm	<b>Undergrad Meet and Greet</b>	Student	Banyan/Citrus
3:30 pm - 5:00 pm	<b>Meet the Professors</b>	Student	Banyan Breezeway
6:00 pm - 8:00 pm	<b>Demo Night BBQ</b>	Social	Beachside Decks
7:00 pm - 10:00 pm	<b>Demo Night</b>	Social	Talk Room 1-2
<b>Tuesday, May 23, 2023</b>			
7:45 am - 8:45 am	Morning Coffee & Continental Breakfast	Break	Garden Courtyard & Pavilion
7:45 am - 6:45 pm	<b>Registration Open</b>	Registration	Grand Palm Colonnade
8:00 am - 5:30 pm	<b>Exhibits Open</b>	Exhibits	Pavilion
8:15 am - 9:45 am	<b>Plasticity and Learning 2</b>	Talk Session	Talk Room 1
8:15 am - 9:45 am	<b>Binocular Vision</b>	Talk Session	Talk Room 2
8:30 am - 12:30 pm	<b>Tuesday Morning Posters</b> Visual Search: Scenes and other natural environments; Scene Perception: Neural mechanisms; Scene Perception: Categorization, memory, cognition; Face Perception: Models; Face Perception: Neural mechanisms; Perceptual Organization: Segmentation, grouping, similarity; Color, Light, and Materials: Neural	Poster Session	Banyan Breezeway



mechanisms, models

8:30 am - 12:30 pm	<b>Tuesday Morning Posters</b> Spatial Vision: Models and image statistics; Attention: Bottom-up; Visual Memory: Buildup, imagery, ensembles; Development: Perception and cognition; Motion: Higher-order; Eye Movements: Complex tasks	Poster Session	Pavilion
9:45 am - 10:30 am	Coffee Break	Break	Garden Courtyard & Pavilion
10:45 am - 12:30 pm	<b>Visual Memory: Space, time, features, objects</b>	Talk Session	Talk Room 1
10:45 am - 12:30 pm	<b>Object Recognition: Categories, neural mechanisms</b>	Talk Session	Talk Room 2
12:30 pm - 1:15 pm	<b>VSS Business Meeting</b>	Business	Talk Room 2
12:30 pm - 2:30 pm	Lunch (on your own) cash lunch available in Grand Palm Colonnade	Break	Grand Palm Colonnade
12:30 pm - 2:30 pm	<b>phiVis: Philosophy of Vision Science Workshop</b>	Satellite	Glades/Jasmine
1:15 pm - 2:30 pm	<b>Connect with Industry</b>	Networking	Blue Heron
2:30 pm - 4:15 pm	<b>Eye Movements: Neural processes and models</b>	Talk Session	Talk Room 1
2:30 pm - 4:15 pm	<b>Scene Perception</b>	Talk Session	Talk Room 2
2:45 pm - 6:45 pm	<b>Tuesday Afternoon Posters</b> Eye Movements: Scenes, VR, 3D; 3D: Spatial layout and VR/AR; Perceptual Organization: Contour integration, common fate; Plasticity and Learning: Sensorimotor; Plasticity and Learning: Cortex; Motion: Optic flow; Perception & Action: Grasping	Poster Session	Banyan Breezeway
2:45 pm - 6:45 pm	<b>Tuesday Afternoon Posters</b> Face Perception: Wholes, parts, configurations, and features; Face Perception: Development and disorders; Face Perception: Social cognition; Object Recognition: Neural mechanisms; Object Recognition: Categories	Poster Session	Pavilion
4:15 pm - 5:00 pm	Afternoon Coffee & Snack	Break	Garden Courtyard & Pavilion
5:15 pm - 7:15 pm	<b>Attention: Models, individual differences, reward, capture, shifting</b>	Talk Session	Talk Room 1
5:15 pm - 7:15 pm	<b>Visual Working Memory</b>	Talk Session	Talk Room 2
10:00 pm - 2:00 am	<b>Club Vision</b>	Social	Talk Room 1-2
<b>Wednesday, May 24, 2023</b>			
7:45 am - 8:45 am	Morning Coffee & Continental Breakfast	Break	Garden Courtyard & Pavilion

7:45 am - 12:45 pm	Registration Open	Registration	Grand Palm Colonnade
8:15 am - 10:00 am	Perceptual Decision-Making and Confidence	Talk Session	Talk Room 1
8:15 am - 10:00 am	Visual Search	Talk Session	Talk Room 2
8:30 am - 12:30 pm	<p>Wednesday Morning Posters</p> <p>Visual Search: Attention; Visual Search: Strategies, efficiencies; Visual Memory: Capacity, encoding, retrieval; Spatial Vision: Texture; Temporal Processing: Neural mechanisms and models; Object Recognition: Features and parts</p>	Poster Session	Banyan Breezeway
8:30 am - 12:30 pm	<p>Wednesday Morning Posters</p> <p>Eye Movements: Attention, cognition, neural processes; Eye Movements: Fixation; Scene Perception: Natural image statistics; Scene Perception: Models; Scene Perception: Virtual environments; Perceptual Organization: Symmetry, preference, ensembles; Perception and Action: Perception of Human Actions and Bodies</p>	Poster Session	Pavilion
10:00 am - 10:45 am	Coffee Break	Break	Garden Courtyard & Pavilion
10:45 am - 12:30 pm	Attention: Spatial, featural, temporal, divided	Talk Session	Talk Room 1
10:45 am - 12:30 pm	Face Perception: Neural mechanisms and models	Talk Session	Talk Room 2

# 2023 Board of Directors

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*Term ends in May of year shown.*

# 2023 Keynote – Hany Farid



## Hany Farid

*Electrical Engineering & Computer Sciences and the School of Information, University of California Berkeley*

**Hany Farid** is a Professor at the University of California, Berkeley with a joint appointment in Electrical Engineering & Computer Sciences and the School of Information. His research focuses on digital forensics, forensic science, misinformation, and human perception. Dr. Farid received his undergraduate degree in Computer Science and Applied Mathematics from the University of Rochester in 1989, a M.S. in Computer Science from SUNY Albany in 1992, and his Ph.D. in Computer Science from the University of Pennsylvania in 1997. Following a two-year post-doctoral fellowship in Brain and Cognitive Sciences at MIT, Hany Farid joined the faculty at

Dartmouth College in 1999 where he remained until 2019. Dr. Farid is the recipient of an Alfred P. Sloan Fellowship, a John Simon Guggenheim Fellowship, and is a Fellow of the National Academy of Inventors.

To learn more about Professor Hany Farid and his research, please visit his [website](#).

## Creating, (Mis)using, and Detecting Deep Fakes

*Saturday, May 20, 2023, 7:15 – 8:15 pm, Talk Room 1-2*

Synthetic media – so-called deep fakes – have captured the imagination of some and struck fear in others. These stunningly realistic images, audio, and videos are the product of AI-powered synthesis tools. Although just the latest in a long line of techniques used to manipulate reality, deep fakes pose new opportunities and risks due to their ease of use and their democratized accessibility. I will describe how deep fakes are created, how they are being used and misused, and if and how they can be perceptually and computationally distinguished from reality.

# Dauida Teller Award – Mary A. Peterson

Monday, May 22, 2023, 12:30 – 2:00 pm, Talk Room 2

## The Vision Sciences Society is honored to present Mary A. Peterson with the 2023 Dauida Teller Award

Congratulations to Mary A. Peterson, the eleventh recipient of the Dauida Teller Award. The Teller Award was created to honor the late Dauida Teller's exceptional scientific achievements, commitment to equity, and strong history of mentoring. The award is given to a female vision scientist in recognition of her exceptional, significant, or lasting contributions to the field of vision science.



## Mary A. Peterson

*Professor of Psychology and Director of the Cognitive Science Program at the University of Arizona*

Dr. Mary A. Peterson is a Professor of Psychology and Director of the Cognitive Science Program at the University of Arizona. Following a B.A. in English Literature from Marymount Manhattan College, where she graduated *summa cum laude* in 1972, Mary decided to change direction. Ultimately, she decided to study visual perception with Julian Hochberg at Columbia University (1978-1983). After starting as an Assistant Professor at SUNY Stony Brook, she moved to the University of Arizona in 1988.

Dr. Peterson is a leader in the study of perceptual organization and a pioneer in the modern study of figure-ground processing. She has employed clever behavioral experiments, neuroimaging, and patient work to demonstrate that perceptual organization is an iterative process in which past experience impacts all “stages” of perception. Although her revolutionary ideas and compelling data initially went against the grain of the then-prevailing theories of perception as a serial bottom-up process, her innovative perspective has now become the predominant way that vision scientists think about perception. Her research contributions have been widely recognized, including her election to fellow status in the American Association for the Advancement of Science (AAAS), the American Psychological Association (APA), the Association for Psychological Science (APS), the Society of Experimental Psychologists (SEP), and the International Neuropsychological Symposium (INS).

Dr. Peterson has been exemplary in her commitment to diversity, equity, and inclusion. Spurred by discussions at VSS 2015, she and a team of other women co-founded Females of Vision et al. (FoVea) to advance the visibility, impact, and success of women in vision science, with Mary spearheading a National Sciences Foundation grant to fund travel & networking awards, mentorship events, and other initiatives. FoVea events have become a vital part of the annual VSS meeting and have continually ensured that the mandate serves a range of marginalized groups. Mary has also been an advocate and ally to marginalized groups through service to her University, the Psychonomic Society, and Women in Cognitive Science (WiCS).

Mary has been widely recognized as a supportive and influential mentor, both to individuals and communities. In 2019, she was awarded an Excellence in Mentoring Award from the University of Arizona and the Early Career Psychologist Champion Award from the APA.

Dr. Peterson has been a member of the Board of Directors for VSS, served as Chair of the Governing Board of

the Psychonomic Society, was co-founder and President of the Configural Processing Consortium, and has been active in the Federation of Associations in Behavioral & Brain Sciences (FABBS). She received the Psychonomic Society's highest honor, the Clifford T. Morgan Distinguished Leadership Award.

# Ken Nakayama Medal for Excellence in Vision Science – William H. Warren

*Monday, May 22, 2023, 12:30 – 2:00 pm, Talk Room 2*

**The Vision Sciences Society is honored to present William H. (Bill) Warren with the 2023 Ken Nakayama Medal for Excellence in Vision Science.**

The Ken Nakayama Medal is in honor of Professor Ken Nakayama's contributions to the Vision Sciences Society, as well as his innovations and excellence in the domain of vision sciences.

The winner of the Ken Nakayama Medal receives this honor for high-impact work that has made a lasting contribution in vision science in the broadest sense. The nature of this work can be fundamental, clinical or applied.



## William H. (Bill) Warren

*Chancellor's Professor, Brown University*

Bill Warren received his B.A. in 1976 from Hampshire College concentrating in Psychology, Biology and Philosophy and a Ph.D. in 1982 from the University of Connecticut in Experimental Psychology with Robert Shaw and Michael Turvey. Following a brief post-doctoral stint at the University of Edinburgh with David Lee, he became faculty at Brown University, where he is now Chancellor's Professor in the Department of Cognitive, Linguistic and Psychological Sciences. In 1998, he founded the Virtual Environment Navigation Lab (VENLab) to study perception and action, well before the recent adoption of virtual reality techniques in research.

Bill Warren has broadened the view of vision at VSS to include many questions about how vision guides people's interactions with the real and virtual world, which is obviously what vision is really for. His work has revealed how people use vision to perceive their environment, as well as how they subsequently control their actions. The former involves demonstrating people's proficiency at judging affordances, surface layout, and self-motion. The latter involves demonstrating how adaptive behavior emerges from the dynamic interaction between an organism and its environment. Bill has examined all this in a rigorous manner for a wide variety of topics such as judging whether one can step onto or pass between surfaces, judging where one is heading on the basis of the optic flow, controlling locomotion between obstacles, towards targets, and in large crowds, and navigating over longer distances. He has collaborated with movement scientists on visual-motor coordination, with biologists on insect flight control, with computer scientists on collective crowd dynamics, and with safety researchers on emergency evacuation. He has consistently combined experimental, computational and theoretical analyses of the problems he has tackled, often exposing implicit assumptions that others are making. Finally, he used mobile virtual reality — long before it became popular and accessible — to conduct ground-breaking experiments on how walking subjects use visual information to guide naturalistic behavior in controlled settings. Building on the theoretical insights of James Gibson, he has introduced the VSS community to a new way of considering vision. His work has been instrumental in defining the field that we know as Perception and Action.

Bill is the recipient of a Fulbright Research Fellowship, Brown's Teaching Award for Excellence in the Life Sciences, and is an elected Fellow of the Society of Experimental Psychologists. He has been Professeur Invité at the University of Paris Orsay and the University of Aix-Marseille, and is currently President of the International Society for Ecological Psychology.



# Elsevier/VSS Young Investigator Award – Brian A. Anderson

Monday, May 22, 2023, 12:30 – 2:00 pm, Talk Room 2

**The Vision Sciences Society is honored to present Brian A. Anderson with the 2023 Elsevier/VSS Young Investigator Award.**

The Elsevier/VSS Young Investigator Award, sponsored by *Vision Research*, is given to an early-career vision scientist who has made outstanding contributions to the field. The nature of this work can be fundamental, clinical, or applied. The award selection committee gives highest weight to the significance, originality and potential long-range impact of the work. The selection committee may also take into account the nominee's previous participation in VSS conferences or activities, and substantial obstacles that the nominee may have overcome in their careers. The awardee is asked to give a brief presentation of her/his work and is required to write an article to be published in *Vision Research*.



## Brian A. Anderson

*Associate Professor, Department of Psychological & Brain Sciences, Texas A&M University*

The 2023 Elsevier/VSS Young Investigator Award goes to Professor Brian A. Anderson for his seminal contributions to understanding of visual attention and cognition. Dr. Anderson is an Associate Professor with tenure in the Department of Psychological & Brain Sciences at Texas A&M University, where he also serves as the Director of Human Imaging. After graduating summa cum laude at the University of Maine at Augusta with a degree in Social Science, Dr. Anderson obtained an M.S. in Psychology working with Charles Folk at Villanova University and then a Ph.D. in Psychological and Brain Sciences with Steven Yantis at Johns Hopkins, where he also

completed a short postdoctoral fellowship.

Dr. Anderson's research has provided fundamental insights into the mechanisms of visual attention. He pioneered a method for studying how the relationship between reward and visual stimuli in one task setting can impact the allocation of attention in other contexts. This resulted in the striking discovery that visual features previously associated with rewards continue to draw attention even when those features are neither relevant nor salient. This value-driven form of attentional capture also provides a useful model for understanding failures of value-based cognitive control, such as in addiction. Dr. Anderson's work has further examined the relationship of value-based attention to dopamine signaling and to the processing of both aversive and rewarding stimuli. Dr. Anderson has had an immense impact of the field, having published over 80 original research articles and 10 review articles, and earning recognitions from the American Psychological Association, the Association for Psychological Science, and the Psychonomic Society. He has mentored many graduate, masters and undergraduate students, postdocs, and postbacs, who themselves have first authored many papers and received many awards. Dr. Anderson's accomplishments illustrate how insights from basic vision science can impact multiple disciplines and translate to the clinic and beyond.

## **Value-Driven Attention and the Story Behind the Science**

Less than 15 years ago, the control of attention was widely held to reflect the joint influence of two underlying mechanisms of prioritization: one goal-directed and the other stimulus-driven. Now, there is considerable consensus that a third mechanism governing the control of attentional exists that is reducible to neither goal-directed nor stimulus-driven influences, which has come to be referred to as selection history. Pivotal to this fundamental shift in thinking was the finding that an arbitrary task-irrelevant stimulus less physically salient than the target could come to involuntary capture attention as a function of its reward history. That is, reward learning could directly modify the attentional priority of an otherwise ignored stimulus. This talk will recount how that finding came to be, and how my thinking on the topic has evolved over the years.

*Dr. Anderson will speak during the Awards session.*

# 2023 Sponsors

## Awards Sponsor

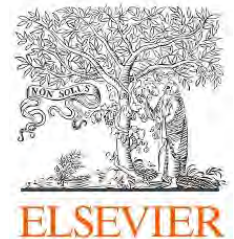
### Elsevier/ *Vision Research*

Elsevier is proud to sponsor the 2023 Young Investigator Award and the VSS 2023 Elsevier/Vision Research Travel Awards.

**Elsevier** is a global information analytics business that helps institutions and professionals advance healthcare, open science and improve performance for the benefit of humanity.

We help researchers make new discoveries, collaborate with their colleagues, and give them the knowledge they need to find funding.

We help governments and universities evaluate and improve their research strategies. We help doctors save lives, providing insight for physicians to find the right clinical answers, and we support nurses and other healthcare professionals throughout their careers. Our goal is to expand the boundaries of knowledge for the benefit of humanity.



## National Eye Institute

**The National Eye Institute (NEI)** conducts and supports research, training, health information dissemination, and other programs with respect to blinding eye diseases, visual disorders, mechanisms of visual function, preservation of sight, and the special health problems of individuals who are visually impaired or blind. Vision research is supported by the NEI through research grants and training awards made to scientists at more than 250 medical centers, hospitals, universities, and other institutions across the country and around the world. The NEI also conducts laboratory and patient-oriented research at its own facilities located on the NIH campus in Bethesda, Maryland.



## Level 1 Corporate Member

### Apple



## Gold Sponsor

### VPiXX Technologies

**VPiXX Technologies** welcomes the vision science community to VSS 2023.

Over the past 22 years, VPiXX has become known for our innovative hardware for vision research. The PROPiXX DLP LED video projector, supporting refresh rates up to 1440Hz, has become the standard for neuroimaging,



neurophysiology, and behavioral vision research applications. The TRACKPixx3 2kHz binocular eye tracker and the DATAPixx3 I/O hub offer microsecond-precise data acquisition synchronized to stimulus presentation. Our new LabMaestro software is now making these instruments even easier to use!

Visit our booth to see demonstrations of our LabMaestro suite of psychophysics software. LabMaestro Builder is your intuitive GUI application for designing and running psychophysics experiments in your lab. LabMaestro Pack&Go is your solution for quickly running psychophysics experiments on remote subject populations.

LabMaestro Simulator emulates VPixx hardware, allowing you to develop and test experiment protocols in the absence of your physical instruments. Visit our booth to discuss your research with our Staff Scientists!

Peter April, Jean-Francois Hamelin, Sophie Kenny, and Jonathan Tong wish you well.

## Silver Sponsors

### Exponent

**Exponent** is a leading scientific and engineering consulting firm.

Our multidisciplinary organization brings together more than 90 technical disciplines to address complicated issues facing industry and government today. Among myriad other specialized services,

we provide user experience and human factors support across the entire product lifecycle informed by five

decades of experience in failure analysis. We are always looking for qualified PhDs, postdocs, and early-career

faculty interested in technical consulting.



### SR Research Ltd

**SR Research** produces the EyeLink family of high-speed eye trackers and has been enabling scientists to perform cutting-edge research since the early 1990s. EyeLink

systems are renowned for their outstanding technical specifications, temporal

precision, and superb accuracy. The EyeLink 1000 Plus has the world's lowest spatial

noise and can be used in the laboratory and in EEG/MEG/MRI environments. The

EyeLink Portable Duo offers the same high levels of data quality in a small, portable

package. SR Research also provides sophisticated experiment delivery and analysis

software, and a truly legendary support service.



## Bronze Sponsors

### Brain Vision LLC

**Brain Vision LLC** is the leading team for EEG in Vision Science. We

offer full integration of EEG with many leading eye-tracking and

video systems we also provide flexible and robust solutions for both

stationary and mobile EEG. All of our systems are available with a

variety of electrode types such as saline-sponge nets, active gel,

passive, and dry electrodes, which are easily expandable with bio-sensors like GSR, ECG, Respiration, and EMG.

Our team is specialized in using EEG with other modalities such as fMRI, fNIRS, MEG, TMS, and tDCS/HDtDCS.

If you want to know how EEG and Vision Science improve each other, please feel free to contact us:



Phone: +1.877.EEG 4 MRI

Email: [info@brainvision.com](mailto:info@brainvision.com)

## Cambridge Research Systems

At **Cambridge Research Systems**, our reputation is founded on values of scientific rigour and integrity. For over 30 years, our unique range of Tools for Vision Science, Functional Imaging and Clinical Research has been ubiquitous in laboratories throughout the world, and cited in thousands of papers.

We design and develop innovative new tools that enable the advancement of science by combining engineering expertise with innovation, cutting edge technology, and ongoing collaboration with our valued academic partners. Our products are market leaders, our people committed and knowledgeable. Our ambition is to continue setting standards in the vision science community, of which we are proud to be a part.

We look forward to seeing you again at VSS! Please call at our booth to see our latest products for visual stimulation, eye tracking, vision assessment, and MRI; or contact [enquiries@crsltd.com](mailto:enquiries@crsltd.com).

## C. Light Technologies

**C. Light Technologies**, is a neuro-tech and AI company whose mission is to create a scanning laser ophthalmoscope (SLO) technology and eye tracking software to objectively measure eye motion via the retina. We are on the mission to create novel technology to enhance the quality of life for people with neurodegenerative disorders via the eye-brain connection.

The Retitrack™ is an Eye Movement Monitor. It is intended for recording, viewing, measuring, and analyzing temporal characteristics of fixation and saccadic responses when viewing a visual stimulus.

## NIRx Medical Technologies

**NIRx Medical Technologies**, LLC is a globally recognized leader in providing comprehensive solutions for functional near-infrared spectroscopy (fNIRS) research. The versatility of fNIRS has seen a significant increase in its application in vision science. The technique allows for the measurement of neural activity in the visual cortex and large-scale cortical networks and is useful in investigating the neural mechanisms underlying visual attention and perception. Additionally, fNIRS is employed in studying the effects of visual deprivation or visual training. Its non-invasive and user- and subject-friendly nature makes it an ideal tool for monitoring changes in neural activity during the development of the visual system in infants and children. Furthermore, it is increasingly used in researching changes in neural activity related to visual disorders and the changes resulting from treatment.

NIRx offers a complete range of research solutions, including a versatile multimodal hardware platform, advanced online and offline analysis software, expert technical and scientific support, and comprehensive



training programs.

We are committed to supporting fNIRS researchers through our offices in Orlando, New York and Berlin, Germany. For further details on our solutions, please do not hesitate to contact us at +49 308 1453 5990 (EU), (+1) 321-352-7570 (US/Canada), or come and visit our booth at the VSS meeting.

## Open Science Tools

**Open Science Tools** created and maintains [PsychoPy](#), [PsychoJS](#) and [Pavlovia](#).

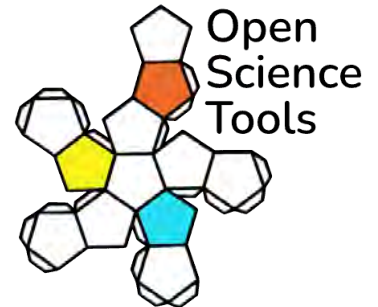
These tools are designed to make it as easy as possible to create high-precision experiments for lab-based or online studies, even running vision-science experiments and providing gamma-correction in browser-based studies. Stop by the booth to find out what's now possible – you might be surprised!

[PsychoPy](#) and [PsychoJS](#) are unusual in being open-source tools that are supported by a revenue stream, from our hosting and consultancy services, which means the tools are developed and supported by a full-time professional team. The best of both worlds!

We now also provide consultancy services, either to help generate your studies, or to provide training for your department or team. If you don't have time to write that next experiment, or to port your code over from `SomeOtherPackage`, but you do have some left over funding, then get in touch on [consultancy@opensciencetools.org](mailto:consultancy@opensciencetools.org)

## Psychology Software Tools

**Psychology Software Tools** – Developers of E-Prime 3.0 stimulus presentation software. E-Prime 3.0 now includes E-Prime Go for remote data collection! Integrate E-Prime with eye tracking and EEG with E-Prime Extensions for Tobii Pro, EyeLink, Net Station, and Brain Products. Use Chronos for millisecond-accurate responses, sound output, and triggers to external devices. Chronos Adapters provide a simple connection to external devices, including Brain Products, ANT Neuro, BIOPAC, BioSemi, Neuroscan, MagstimEGI, NIRx, g.tec, Smart Eye and more. PST also provides solutions for fMRI research, such as Fiber Optic and Wireless Response Systems, Digital Projection System, and an MRI Simulator with head motion tracking. PST has a 35-year company history with 100,000+ users in 75 countries!



## Psychonomic Society

**The Psychonomic Society** is a community of over 4,300 cognitive and experimental psychologists from more than 60 countries around the world. Members include some of the most distinguished researchers in the field. Many are concerned with the application of psychology to health, technology, and education. What brings us together is that we study the basic, fundamental properties of how the mind works by using behavioral techniques to better understand mental functioning.



Our most innovative research uses converging methods from behavioral measurement, neuroscience, computational modeling and other fields to achieve our research goals. Members of the Society conduct research on questions concerning memory, learning, problem solving, decision making, language, attention, and perception. We also connect with research in biology, chemistry, statistics, computer science, medicine, law, and business.

We achieve our objectives by hosting meetings around the world, publishing seven world-class, peer-reviewed journals, disseminating our research, and funding workshops and symposia.

[Visit us online](#) and [Become a Member](#).

## Rogue Research Inc.

**Rogue Research** has been your partner in neuroscience research for over 20 years. As developers of the Brainsight® family of neuronavigation systems for non-invasive brain stimulation, we have helped make transcranial magnetic stimulation more accurate and more reproducible while keeping it simple and effective. 20 years and over 1000 laboratories later, Brainsight® continues to evolve to meet the needs in non-invasive brain stimulation.



Rogue Research has expanded beyond navigation to develop our own, next-generation, TMS device: Elevate™ TMS. Elevate™ TMS offers control over the pulse shape to ensure more reproducible excitatory or inhibitory effects on the targeted network. While Brainsight® ensures accurate targeting and Elevate™ TMS ensures reliable circuit interaction, Rogue Research is also developing a robotic positioner to ensure that the plan is accurately and efficiently carried out. The unique design ensures accuracy, repeatability and simplicity.

Rogue Research also offers our Brainsight® Vet line of neurosurgical and neuronavigation tools for animal research. Come see our navigated microsurgical robot, which is the most accurate animal stereotaxic system on the market. We also offer custom MRI compatible implants and a line of MRI coils and testing platforms.

## WorldViz VR

For 20 years, **WorldViz VR** has helped over 1500 universities, businesses and government organizations to conduct [leading edge research](#) with Virtual Reality.



Over the years, WorldViz VR has developed [Vizard](#), a python-based platform that enables users to rapidly build 3D virtual reality applications that solve real world business and research challenges.

WorldViz will present SightLab VR, a fully GUI based tool that allows users to collect, review and [analyze eye tracking data](#) with support for all the major PC based VR eye tracking devices including HP Reverb Omnicept, Vive Pro Eye, Pupil Labs and Tobii VR. It will allow drag and drop adding of videos and 3D models, and many of the most used analytics methods are included into the provided templates.

Build a scene, run your experiment and review in minutes. Fully expandable and modifiable by using the GUI configurator or python code.

The WorldViz components allow integration of highly targeted [VR labs](#), and we are happy to help customers configure their own labs, tailored to their specific needs.

## **Zeto, Inc.**

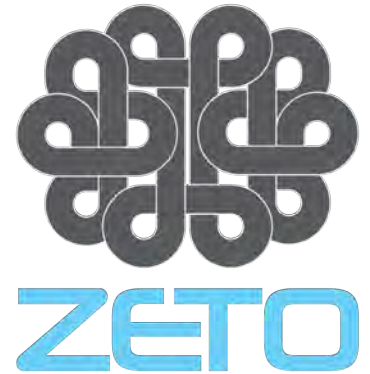
**Zeto, Inc.** is a privately held medical technology company located in Santa Clara, CA focused on transforming the way electroencephalography is done in clinical and research settings. Zeto's revolutionary FDA-cleared EEG platform brings the traditional EEG procedure to the 21st century by offering the WR19, a zero-prep, wireless, easy-to-wear headset with active, dry electrodes that can be positioned as per the 10-20 system.

The Zeto headset is backed by a cloud data and software platform, a real-time LSL-based API, and a TTL-based trigger device for ERP studies.

The company plans to leverage its platform technology to improve access and quality to medical EEG testing and to enable and improve adjacent biomedical research and clinical trials.

Learn more about our research platform: <https://zeto-inc.com/academic-discount/>

Contact us: [research@zetoinc.com](mailto:research@zetoinc.com)





# Graphics Competition Winners

Each year, VSS solicits its membership to submit creative visual images related to the field of vision science, the Society, or the VSS meeting. There are two competitions, **Website Banner Competition** and the **T-Shirt Design Competition**. Winning graphic images are featured on the program, abstracts book, signage, and t-shirts.

The Vision Sciences Society is pleased to recognize **Karissa Payne** and **Evi Hendrikx**, as the winners of the 2023 Graphics Competition.

## Website Banner Competition

Winner: **Karissa Payne**, Kansas State University



This design takes inspiration from the technologies and statistical methods we use every day to make our science happen. The VSS logo is depicted as the pupil within an eye shape constructed with angled lines, making a camera aperture shape for the iris. The background design takes inspiration from the statistical models we create to explore connections in our data. Dots and lines indicative of parameters and weightings are remixed, creating an abstract pattern evocative of the complex nature of the elements we study.

## T-Shirt Design Competition

Winner: **Evi Hendrikx**, Utrecht University



T-shirt Back and Chest Images

This year's t-shirt design uses the letters of VSS to create the contours of illustrations. The front image is an eye, to make the explicit link to the topic of the conference: vision science. The back image combines the letters of VSS with the numbers of 2023 to mimic VSS' beautiful setting, with a wink to the eye on the front. This image also playfully demonstrates the interaction between bottom-up and top-down processing in visual perception: as soon as you spot the dolphin, you will continue to see it!

# 2023 Annual Business Meeting

*Tuesday, May 23, 2023, 12:30 – 1:00 pm, Talk Room 2*

We encourage you to join the VSS Board of Directors for the Annual Business Meeting. During this meeting, the VSS leadership will provide an overview of the Society, including the outlook and priorities for next year's meeting.

The Business Meeting is an opportunity for VSS members to ask questions of the VSS Board of Directors and bring up issues of concern to the general membership.

You may send questions before the start of the Business Meeting to [vss@visionsciences.org](mailto:vss@visionsciences.org).

# Inclusivity Roundtables

*Saturday, May 20, 2023, 12:45 – 2:15 pm, Jasmine/Palm*

The VSS conference brings together vision scientists from all over the globe with diverse life experiences, including many who have overcome or continue to face significant challenges to participating in vision science. This event will provide an opportunity to gather with those who share your background and life experiences, as well as meet and share stories with those who have followed different paths. Last year at this event we connected with Equality Florida, and discussions among event participants led to grassroots efforts, including this year's scientific symposium, "Critical Perspectives On Vision Science". Participants will have the opportunity to join in roundtable discussions. VSS wants to hear about challenges our members may have faced or may continue to face. We want to hear ideas from the membership about how VSS can better serve its diverse community, and increase the participation and improve the experiences of those from groups that have been historically underrepresented in our field.

All are invited to attend. Stop by, meet new people, and chat with a member of the board.

Refreshments and a light lunch will be available.

# Accessibility event: How to make accessible scientific presentations

*Sunday, May 21, 2023, 1:00 – 2:00 pm, Blue Heron*

**Organizers:** Doug Addleman, Dartmouth College; Rebecca Hornsey, York University; Takuma Morimoto, University of Giessen

**Moderator:** Takuma Morimoto, University of Giessen

**Speakers:** Jordi Asher, University of Essex (in-person); Yueh-Hsun (Walter) Wu, University of Minnesota, Twin Cities (virtual)

Conference presentations are the primary way researchers communicate their new work to other members of the scientific community. To promote effective communication between presenters and their audience, it is important to consider accessibility when preparing conference presentations. The VSS Student-Postdoc Advisory Committee is excited to announce an accessibility event that will focus on two main topics: (1) how we can enhance the accessibility of scientific presentations for individuals with visual impairments, and (2) methods for improving conference accessibility for attendees with visual impairments.

The event will start with introductory presentations from vision scientists with expertise in visual accessibility, followed by group discussions with the audience to consider actions that individual researchers can take to make presentations and conferences more accessible. The event will conclude with a general discussion where people can share their thoughts with all attendees. Our goal for this event is to expand our knowledge on accessibility and inclusivity, with a focus not only on the immediate benefits for visually impaired scientists but also on ways to enhance the accessibility of the overall VSS experience for everyone. The event is open to any VSS attendee.



**Jordi M Asher**

*University of Essex*

**Jordi M Asher**, is a Lecturer at the University of Essex. Her research to date has focussed on understanding the potential of plasticity in the brain and training strategies to help people recover impaired visual fields. She is currently in the process of building and testing an assistive technology for visual field loss.



**Walter Wu**

*University of Minnesota, Twin Cities*

**Walter Wu**, got his Ph.D. in psychology with a translational sensory science minor at the University of Minnesota. Starting in the fall, he will work at the College of Optometry at The Ohio State University as a provost's fellow. Walter is also one of the founding members of the International Network of Researchers with Vision Impairment and their Allies (INOVA). Walter's research focuses on different topics related to the impact of impaired vision on daily activities and the usage of assistive technologies in people with low vision.



## **Takuma Morimoto**

University of Giessen

Takuma Morimoto is currently a postdoctoral fellow at University of Giessen. His research aims to understand mechanisms underpinning stable visual percepts of material properties, such as color and gloss, across vastly different lighting environments. Takuma joined the Student-Postdoc Advisory Committee to help make VSS an even more diverse and inclusive community. He is especially keen to support students and early career researchers with non-traditional pathways to

research using his experiences as a first-generation student.

# Workshop for PhD Students and Postdocs

## Strategies for Funding your Research Ideas Around the Globe

*Saturday, May 20, 2023, 12:45 – 2:15 pm, Sabal/Sawgrass*

**Moderator:** Krystel Huxlin, University of Rochester, USA

**Panelists:** Reuben Rideaux, University of Sydney; Martin Rolfs, Humboldt-Universität zu Berlin; Miriam Spring, University of British Columbia

Success in obtaining grant funding for your research ideas is a hallmark of success in academia, and increasingly, in private industry. This workshop features panelists who will provide perspectives on strategies to attain funding success. Topics will include: what constitutes a fundable research idea, opportunities and strategies for developing grantsmanship as a graduate student or postdoc – including those pertinent to diversity, how granting opportunities differ in different countries, how grants are evaluated by granting agencies, and best practices for reacting and responding to grant evaluations in a manner that ultimately leads to funding success.



### Reuben Rideaux

University of Sydney

**Reuben Rideaux** is an ARC DECRA Fellow at the University of Sydney, and an Honorary Senior Research Fellow at the Queensland Brain Institute. Prior to this, he was a Leverhulme Early Career Fellow at the University of Cambridge and a PhD student at the Australian National University. He combines computational modelling, neuroimaging, and psychophysics to study perception and cognition. He has a particular interest in developing new methods for understanding brain function, such as bio-inspired

explainable AI, high resolution functional MR spectroscopy, and neural decoding. He leads the ECR subcommittee of the Australian Cognitive Neuroscience Society, and regularly speaks about his work to research groups, clinicians, and the media. In addition to supervision of graduate and postgraduate students, he enjoys participating in public outreach activities aimed at communicating the importance sensory and cognitive neuroscience research to the public, e.g., Cambridge BrainFest, and encouraging school students consider a career in neuroscience research, e.g., BrainBee.



### Martin Rolfs

*Humboldt-Universität zu Berlin*

**Martin Rolfs** heads the Active Perception and Cognition lab at the Department of Psychology at Humboldt-Universität zu Berlin. He obtained his PhD from the University of Potsdam in 2007, for which he received the Heinz Heckhausen Award, and was a postdoc at Université Paris Descartes and a Marie Curie fellow at New York University and Aix-Marseille Université. In 2012, he established a junior research group at the Bernstein Center for Computational Neuroscience before, he was appointed Heisenberg

Professor at Humboldt-Universität zu Berlin in 2018. His research is funded by the German Research foundation (DFG) and the European Research Council (ERC), and he is a core PI at Berlin's Cluster of Excellence Science of Intelligence.



## **Miriam Spering**

University of British Columbia

**Miriam Spering** is Associate Professor in Ophthalmology & Visual Sciences at the University of British Columbia (UBC). She also is Director of the Graduate Program in Neuroscience and Associate Dean of Graduate and Postdoctoral Education in UBC's Faculty of Medicine. Before moving to Canada, Spering completed her undergraduate (Univ Heidelberg, Diploma in Psychology) and graduate education (Univ Giessen, PhD in Psychology) in Germany and postdoctoral training in the US (NYU, Psychology &

Neuroscience). Spering has a notable record of scientific achievements in the vision sciences, with a research focus on eye movements, perception-action interrelations, multisensory integration, and disorders of the sensorimotor system. The recipient of many awards for research and mentorship, she has broad experience in senior academic and research leadership roles, advancing graduate training, interdisciplinarity, and wellbeing, equity, diversity, and inclusivity. Spering is funded by several of the major Canadian funding agencies, and has extensive experience mentoring students to obtain their own fellowship and grant funding.



## **Krystel Huxlin**

*University of Rochester*

Krystel Huxlin is the James V. Aquavella Professor of Ophthalmology and Associate Chair for Research at the University of Rochester (UR)'s Flaum Eye Institute. She also serves as the Associate Director of UR's Center for Visual Science and co-Director of its Training program. She is a member of the Neuroscience Graduate Program Executive Committee, and an Ombudsperson for graduate students and postdocs at the UR Medical Center. Huxlin earned her bachelors (1991) and doctorate (1994) degrees in

Neuroscience at the University of Sydney, Australia. She was an Australian NHMRC C.J. Martin postdoctoral fellow at UR before joining its Ophthalmology faculty (1999). Her work seeks to understand how visual functions can be restored after damage to the visual system, as well as to characterize the properties of, and mechanisms underlying different forms of vision restoration. She holds 10 patents, was the inaugural President of the Rochester SFN Chapter, is an editor at *eLife* and *Journal of Vision*, and a member of the VSS Board of Directors.

# Career Transitions Workshop, Part 1: Early Career Panel

*Sunday, May 21, 2023, 7:30– 8:30 pm, Jasmine/Palm*

**Organized by:** VSS Student-Postdoc Advisory Committee (SPC)

**Organizers:** Claudia Damiano, KU Leuven; Stephanie Shields, The University of Texas at Austin; Maruti V Mishra, University of Richmond

**Moderator:** Claudia Damiano, KU Leuven

**Panelists:** Angelica Godinez, Humboldt Universität zu Berlin; Sabrina Hansmann-Roth, University of Iceland; Madhu Mahadevan, Magic Leap; N Apurva Ratan Murty, Massachusetts Institute of Technology; Alex White, Barnard College

Career transitions are both exciting and scary. Some of the uncertainty regarding a new role, however, can be reduced by talking to others who have made similar transitions. This year VSS-SPC and FoVea together present a two-part 'Career Transitions Workshop' on navigating these diverse pathways, with Part 1: Early Career Panel and [Part 2: Where do I go from here? Round-Table Discussion](#).

Part 1 will feature a panel discussion on early career transitions, from the undergraduate level up through securing faculty positions and jobs outside of academia. A panel of vision scientists with a variety of chosen career paths will discuss their stories, the transitions they've gone through in their careers, and how they made the key decisions that led them to their current jobs. After each panelist gives an overview of their story, audience members will be invited to participate in a question-and-answer session with the panel. The panel will include representatives from both academia and industry, so attendees will hear firsthand perspectives both on navigating academia and on transitioning between academia and industry. Especially given the recent layoffs in industry and the pandemic's lasting impact on hiring in higher education, we hope the panel will provide useful insights into current trends affecting early career researchers and ideas for how trainees can increase their chances of success in today's professional landscape.

Following this panel discussion, participants will be invited to attend [Part 2 of the Career Transitions Workshop](#), where they can take part in small group discussions and enjoy light snacks and drinks.

Note: All are welcome to attend both parts of this workshop, to only attend Part 1, or to only attend Part 2.



## **Angelica Godinez**

*Postdoctoral Researcher, Humboldt Universität zu Berlin*

**Angie**, is a vision scientist and postdoctoral researcher working in Martin Rolfs' Active perception and Cognition lab at Humboldt-Universität zu Berlin and in the German Excellence cluster Science of Intelligence. As part of the cluster, her research is aimed at understanding visual processing for perception and action as an attempt to improve current models of perceptual processing and contribute insights to AI and robotics.

Prior to her postdoc, Angie received a BS in Psychology and MS in Human Factors and Ergonomics from San Jose State University. During this time, she worked in the Visuomotor Control Lab at NASA Ames Research Center where she conducted low-level vision research (i.e., eye-movement responses to changes in stimulus contrast and luminance) and applied research on the physiological changes due to vibration and



acceleration. For her PhD in vision science at the University of California, Berkeley, she worked with Dennis M. Levi on the impact, recovery and possible adaptations of poor binocular vision. While at Berkeley, she completed an internship at NVIDIA where she applied her knowledge of visual processing to gaze-contingent rendering in an attempt to reduce bandwidth and increase rendering speed in computer graphics.



### **Sabrina Hansmann-Roth**

*Assistant Professor, University of Iceland*

**Sabrina Hansmann-Roth**, is an Assistant Professor at the University of Iceland and a Co-PI of the Icelandic Vision Lab. She obtained her PhD from Université Paris Descartes followed by postdoctoral positions at the University of Iceland and the University of Lille. She is interested in the mechanisms used to represent information in visual memory. For that, she investigates probabilistic representations of visual ensembles, visual priming and perceptual biases such as serial dependence. She was a former member of the VSS Student-Postdoctoral Advisory Committee and looking forward to this year's career transitions workshop, sharing her experiences and discussing with ECRs and the other panelists.



### **Madhu Mahadevan**

*Research Scientist, Magic Leap*

**Dr. Madhu Mahadevan** is a vision research scientist at Magic Leap, Inc. She started her career as a clinical optometrist in India with a primary focus on low vision eye care and contact lens management. She then completed her PhD working with Dr. Scott Stevenson on visual attention and eye movements from the University of Houston, College of Optometry, TX. During her doctoral program, she was a research intern at Nvidia, Santa Clara, CA working on auto calibration of eye trackers in virtual reality headsets. After graduation, she joined as a user experience researcher at Human Interfaces, Austin, TX where she used product research methods to help multiple stakeholders interested in enhancing user experience across consumer and enterprise products. She is currently working at Magic Leap, Inc on their augmented reality headset where she uses applied vision concepts and optometric principles in conjunction with product research methods to evaluate design decisions and make optimal choices to help users have a comfortable viewing experience.



### **N Apurva Ratan Murty**

*Research Scientist, Massachusetts Institute of Technology*

**Ratan** received his PhD in Neuroscience from the Center for Neuroscience, Indian Institute of Science, Bangalore. His PhD research with Prof. S.P. Arun elucidated the computational mechanisms underlying viewpoint invariant representations in the monkey inferotemporal cortex. He is currently a NIH K99/R00 Pathway to Independence fellow and Research Scientist at MIT with Profs. Nancy Kanwisher and Jim DiCarlo. In his current research, he uses methods from cognitive neuroscience, human neuroimaging, electrophysiology, and artificial intelligence, to investigate the development and cortical organization of human visual intelligence.

**Alex White**



*Assistant Professor, Barnard College*

**Alex White** has been studying vision since he first attended VSS as an undergraduate in 2006. He is particularly interested in visual word recognition, selective attention, eye movements, and awareness. He got his PhD working with Dr. Marisa Carrasco at NYU in 2013. After a meandering but fruitful postdoctoral journey, he started a faculty position at Barnard College in 2021. An NIH K99/R00 award facilitated that transition. For more information on his current research, see his lab [website](#). Alex also co-organizes the [Visibility](#) events at this conference.



**Claudia Damiano**

*Postdoctoral Researcher, KU Leuven*

**Claudia Damiano** holds a PhD from the University of Toronto (2019) and is currently a Marie Skłodowska-Curie postdoctoral fellow at the University of Leuven (KU Leuven) in Belgium, specializing in scene perception and visual aesthetics. Broadly, her research aims to understand how visual features impact aesthetic preferences and guide attention. In her current project, she explores the cognitive and emotional benefits of interacting with nature using eye-tracking and virtual reality techniques. Her work contributes to our understanding of the relationship between human perception and the appreciation of natural environments. Claudia has served as a panelist on similar early-career panels, offering advice to Master's and PhD students about transitioning to a postdoc position. As a moderator, she will ensure that the panel offers valuable insights and actionable advice to attendees.

# Career Transitions Workshop, Part 2: Where do I go from here? Round Table Discussion

*Sunday, May 21, 2023, 8:45 – 9:45 pm, Garden Courtyard*

**Sponsored by:** Females of Vision et al (FoVea)

**Organizers:** Charisse B. Pickron, University of Minnesota & Diane Beck, University of Illinois

Career transitions are both exciting and scary. Some of the uncertainty regarding a new role, however, can be reduced by talking to others who have made similar transitions. This year VSS-SPC and FoVea together present a two-part 'Career Transitions Workshop' on navigating these diverse pathways, with [Part 1: Early Career Panel](#) and Part 2: Where do I go from here? Round-Table Discussion.



Following Part 1, Career Transition Workshop Part 2 will feature a round table discussion with small, facilitator-led groups that cover transition topics for those in early stages (e.g., students/Postdocs) through advanced career stages (e.g., associate/emeritus). We will start the event with introductions from facilitators who have experienced various career transitions including those from Part 1. Some of the transitions Part 2 will cover include: graduate student & postdoc transitions, academia to industry, academia to government/policy/non-profit, and changing institutions, with a particular interest on issues relevant to women and gender-diverse individuals. Participants will have time to choose 1 to 2 discussion groups to join throughout the workshop. Light snacks and drinks will be served during the workshop.

\*It is not necessary to have attended Part 1 to attend Part 2, as both are different formats and attendees can benefit from both events depending on the level of interaction and discussion they would like to have.

FoVea is a group founded to advance the visibility, impact, and success of women in vision science ([www.foveavision.org](http://www.foveavision.org)). We encourage vision scientists of all genders to participate in the workshops.

# Connect With Industry

*Tuesday, May 23, 2023, 1:15 – 2:30 pm, Blue Heron, Snowy Egret, and Royal Tern*

To reflect the range of interests and career goals of VSS attendees, we are pleased to offer our popular 'Connect with Industry' event at VSS 2023. This is an opportunity for our members to interact with representatives of industry. Representatives from a range of organizations and industries will be present to discuss opportunities for vision scientists in their companies and to answer questions about collaborating with, and working within, their organizations. No advance sign-up is required.

Representatives from companies including [Apple](#), [Brain Vision LLC](#), [Cambridge Research Systems](#), [C. Light Technologies](#), [Exponent](#), [Magic Leap](#), [Meta](#), [NIRx Medical Technologies](#), [Open Science Tools](#), [Vivid Vision](#), [VPixx](#), and [Zeto Inc.](#) will be present to discuss opportunities for vision scientists in their companies and to answer questions about collaborating with and working within, their organizations.

Three 25-minute sessions will be scheduled (1:15– 1:40 pm, 1:40 – 2:05 pm, and 2:05 – 2:30 pm). Drop in for one, or stay for all time slots. Representatives will present an introduction to their company at the start of each session (1:15 pm, 1:40 pm, and 2:05 pm).

No sign-ups are required. Although light snacks will be served, please feel free to bring your brown bag lunch to enjoy during the event.

All VSS attendees are welcome.

# Meet the Professors

*Monday, May 22, 2023, 3:30 – 5:00 pm, Banyan Breezeway*

Students and postdocs are invited to the 8th annual “Meet the Professors” event. This year’s event will follow a similar format to last year’s. There will be up to five, short, 15-minute meetings in small groups. Chat about science, VSS, career issues, work/life balance, or whatever comes up. Or just connect with a new VSS colleague.

**Space will be limited and assigned on a first-come, first-served basis. Each student/postdoc will meet with five professors. If you would like to attend Meet the Professors, please complete this [Registration Form](#). Registration will close on April 21, 2023, or when all spaces are filled. See below for this year’s professors.**

**Members of the VSS Board are indicated with an asterisk\*** in case you have a specific interest in talking to a member of the board.

## Professors and VSS Board Members

**David Alais** (Professor, University of Sydney, Australia) studies multisensory perception as well as bistable perception and awareness using behavioral methods.

**Brian Anderson** (Associate Professor, Texas A&M University) studies how the control of attention is influenced by learning, using behavioral and cognitive neuroscience methods. His academic journey began as a part-time community college student.

**Ben Balas** (Professor, North Dakota State University) studies visual recognition in children and adults, with an emphasis on the role of experience in shaping face and texture recognition. He uses behavioral and computational methods and also uses EEG and eye-tracking in his research.

**David Brainard** (Professor of Psychology, University of Pennsylvania) studies color vision, using psychophysical, physiological, and computational methods. He also has interests in physiological optics, retinal processing, and the role of melanopsin-mediated signals in visual processing.

**Johannes Burge** (Associate Professor of Psychology, Univ. of Pennsylvania) studies vision with natural images, focusing i) on tasks in optics, depth, motion perception, and ii) on how sensory, perceptual, and motor processing unfolds over time. He uses perceptual phenomena like illusions, and an array of tools—forced-choice and continuous psychophysics, image-computable ideal observers, and other modeling techniques—to understand how human vision works and how artificial vision systems should be designed to work. He interned at Adobe Inc. but didn’t like it much.

**Marisa Carrasco** (Julius Silver Professor of Psychology and Neural Science, NYU) investigates several aspects of visual perception and attention using human psychophysics, neuroimaging, neurostimulation, and computational modeling to study the relation between the psychological and neural mechanisms involved in these processes.

**Monica Castelhana** (Professor, Queen’s University) studies how context and real-world knowledge affects perceptual processes, memory and attention and visual search. In her research, she uses a variety of methodologies including EEG, eye movements and virtual reality to examine behavior in virtual environments.

**Sang Chul Chong** (Professor, Yonsei University) studies ensemble perception, visual awareness, and attention, using psychophysics and eye tracking.

**Miguel Eckstein** (Professor, University of California, Santa Barbara) studies attention, search, eye movements, learning, face and medical image perception using psychophysics, computational modeling, and EEG/fMRI techniques. He worked at Cedars Sinai Medical Center and NASA Ames before joining UC Santa Barbara. Messi fanatic.

**James Elder** (Professor and York Research Chair in Human and Computer Vision and Co-Director of the Centre for AI & Society at York University). His research seeks to improve machine vision systems through a better understanding of visual processing in biological systems. He has worked at Nortel and NEC Research and is co-founder of the AI start-up AttentiveVision.

**Marc Ernst** (Head of Applied Cognitive Psychology, Ulm, Germany) has a background in Physics and Cognitive Science. He worked at the Max Planck Institute for Biological Cybernetics, UC Berkeley, and at Bielefeld and Ulm University. His research interests are in multisensory perception and action (vision, touch, audition, vestibular, navigation, grasping), perceptual-motor learning, Human-Machine Interaction, and VR. Studies use both behavioral and computational modeling methods.

**Debbie Giaschi** (Professor, Department of Ophthalmology and Visual Sciences, University of British Columbia) studies motion perception, binocular vision and reading in children and adults using psychophysics and MRI techniques. She is particularly interested in atypical development due to amblyopia or dyslexia.

**Todd Horowitz** (Program Director, Basic Biobehavioral & Psychological Sciences, NCI) is a cognitive psychologist, with a B.S. from Michigan State University (1990) and a Ph.D. from the University of California, Berkeley (1995). From 1995 to 2012, he worked at Brigham and Women's Hospital and Harvard Medical School. He started as a post-doc with Jeremy Wolfe and then in 2000 was promoted to the faculty. He spent 12 years as a soft-money Principal Investigator before moving to the National Cancer Institute, where he is now a Program Director (i.e., program officer) in the Division Cancer Control and Population Sciences. He has published more than 80 peer-reviewed research papers. Currently, he is working to engage cognitive psychologists and vision scientists with problems in cancer control, such as improving medical image interpretation, studying the cognitive effects of cancer and cancer treatments, and improving the effectiveness of visual health communications.

**Kendrick Kay** (Assistant Professor, University of Minnesota)'s research interests lie at the intersection of visual/cognitive neuroscience, functional magnetic resonance imaging methods, and computational neuroscience. His lab combines expertise across different disciplines, including psychology, neuroscience, neuroimaging, statistics, machine learning, and software engineering.

**Michael Landy\*** (Professor of Psychology and Neural Science, NYU) has studied a wide range of topics, including depth perception, sensory cue integration, spatial vision including texture perception, perceptual decision-making, Bayesian models of all of the above, cortical adaptation and metacognition for both perceptual and motor tasks.

**Sam Ling** (Associate Professor, Boston University) uses psychophysics and brain imaging techniques to investigate the neural mechanisms that support basic vision, as well as to understand how early visual processes change in response to top-down signals, such as attention, learning, arousal and memory.

**Rob McPeck** (Professor, SUNY College of Optometry) studies eye movements, attention, and visual search in humans and monkeys, using behavioral and neural recording techniques. He formerly worked at The Smith-Kettlewell Eye Research Institute.

**Mary A. Peterson** (Professor of Psychology and Director of the Cognitive Science Program, University of Arizona) uses behavioral experiments, neuroimaging, and patient work to examine the factors that influence perceptual organization, in particular, the detection of foreground objects against backgrounds. She is a proponent of women in STEM and of interdisciplinarity as exemplified by Cognitive Science.

**Pawan Sinha** (Professor of Brain & Cognitive Sciences, MIT) studies visual neuroscience, combining experimentation and computational modeling. He majored in computer science in India and then came to the US planning to specialize in high-performance processor design. But, due partly to his interest in visual art, he soon changed his research focus to visual neuroscience. His lab is exploring the development of visual skills in typically developing children, as well as those who have gained sight after suffering several years of congenital visual deprivation. This effort, named Project Prakash, allows the lab to simultaneously pursue the twin goals of scientific discovery as well as societal service.

**Viola Störmer** (Assist. Prof., Dartmouth College) studies multisensory perception, in particular how sounds affects vision, selective attention, and working memory. Her lab uses a range of techniques to investigate these topics including psychophysics, experimental psychology, and EEG.

**Bill Warren** (Chancellor's Professor of Cognitive Science, Brown University) uses virtual reality techniques to investigate the visual control of action, including optic flow, locomotion, collective behavior, and visual navigation. He has had an academic career and collaborated with movement scientists on visual-motor coordination, with biologists on insect flight control, with computer scientists on crowd dynamics, and with safety researchers on emergency evacuation.

**Takeo Watanabe** (Fred M. Seed Professor of Cognitive, Linguistic & Psychological Sciences at Brown University) takes an interdisciplinary approach to studying vision using psychophysics, fMRI, and computational neural modeling. Research areas include motion perception, interaction of motion and form, attention and perceptual learning.

**Yaffa Yeshurun** (Professor of Psychology at the University of Haifa) is interested in the interplay between spatial and temporal attention and various aspects of visual perception, including spatial and temporal resolution, internal noise, motion perception, perceived duration, spatial crowding and temporal crowding, relying mainly on behavioral measurements, but also pupillometry and occasionally computational modeling.

## Registration

Please use our online Meet the Professors [Registration Form](#). Online registration closes on **April 21, 2023**.

# Undergrad Meet & Greet

*Monday, May 22, 2023, 2:30 – 3:30 pm, Banyan/Citrus*

Enjoy free snacks and refreshments while you meet other undergraduates. We'll also have a few graduate student and faculty mentors who will be happy to answer any questions about the conference, career options, or scientific interests.

All are welcome!



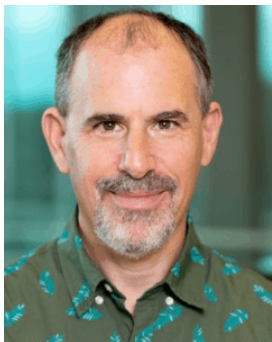
# US Funding Workshop

*Sunday, May 21, 2023, 1:00 – 2:00 pm, Jasmine/Palm*

**Moderator:** Geoffrey Boynton, University of Washington

**Discussants:** Todd Horowitz, National Cancer Institute; Tatiana Pasternak, National Institute of Neurological Disorders and Stroke (NIH); Betty Tuller, National Science Foundation; and Cheri Wiggs, National Eye Institute (NIH)

You have a great research idea, but you need money to make it happen. You need to write a grant. This workshop will address various funding mechanisms for vision research. Our panelists will discuss their organization's interests and priorities, and give insight into the inner workings of their extramural research programs. There will be time for your questions.



## **Todd Horowitz**

*National Eye Institute (NIH)*

**Todd Horowitz**, is a Program Director in the Behavioral Research Program's (BRP) Basic Biobehavioral and Psychological Sciences Branch (BBPSB), located in the Division of Cancer Control and Population Sciences (DCCPS) at the National Cancer Institute (NCI). Dr. Horowitz earned his doctorate in Cognitive Psychology at the University of California, Berkeley in 1995. Prior to joining NCI, he was Assistant Professor of Ophthalmology at Harvard Medical School and Associate Director of the Visual Attention Laboratory at Brigham and Women's Hospital. He has published more than

70 peer-reviewed research papers in vision science and cognitive psychology. His research interests include attention, perception, medical image interpretation, cancer-related cognitive impairments, sleep, and circadian rhythms.



## **Tatiana Pasternak**

*National Institute of Neurological Disorders and Stroke (NIH)*

**Tatiana Pasternak**, is a Scientific Review Officer at the National Institute of Neurological Disorders and Strokes (NINDS). Since she joined NINDS in 2020, she has been focused on overseeing the review of applications submitted to the BRAIN Initiative, the funding mechanism supported by 10 NIH institutes, including the National Eye Institute. Prior to joining NINDS, she was a tenured Professor of Neuroscience at the University of Rochester with an active research program focused on cortical circuits underlying visual perception and working memory in the primate

brain. Throughout her academic career, she has participated in the NIH and NSF peer review, serving as a permanent member on several NIH study sections as well as on many other review panels. As one of the founding members of the Vision Science Society, she has served for several years on its Board of Directors and for two years as its President.



## **Betty Tuller**

*National Science Foundation*

**Betty Tuller**, serves as a Director of the Perception, Action and Cognition Program at the National Science Foundation, where she also serves on the management team for programs in Computational Cognition, the Future of Work at the Human-Technology Frontier, the NSF AI Institutes, Smart Health and Biomedical Research in the Era of Artificial Intelligence and Advanced Data Science, and Collaborative Research in Cognitive Neuroscience. Dr. Tuller earned her doctorate from the University of Connecticut in 1980, then completed post-doctoral work at Cornell University Medical

Center and NYU Medical Center. Prior to joining NSF, she was Professor of Complex Systems and Brain Sciences and Professor of Psychology at Florida Atlantic University.



## **Cheri Wiggs**

*National Eye Institute (NIH)*

**Cheri Wiggs, Ph.D.**, serves as a Program Director at the National Eye Institute (of the National Institutes of Health). She oversees extramural funding through three programs — Perception & Psychophysics, Myopia & Refractive Errors, and Low Vision & Blindness Rehabilitation. She received her PhD from Georgetown University in 1991 and came to the NIH as a researcher in the Laboratory of Brain and Cognition. She made her jump to the administrative side of science in 1998 as a Scientific Review Officer. She currently represents the NEI on several trans-NIH coordinating committees

(including BRAIN, Behavioral and Social Sciences Research, Medical Rehabilitation Research) and was appointed to the NEI Director's Audacious Goals Initiative Working Group.



## **Geoffrey Boynton**

*University of Washington*

**Geoffrey Boynton**, is a VSS Board Member and studies visual attention, reading and prosthetic vision. After studying mathematics at U.C. San Diego and U.C. Santa Barbara, Dr. Boynton received a PhD in Psychology and Cognitive Sciences at U.C. Santa Barbara in 1994. After a decade at the Salk Institute in La Jolla, CA, he joined the faculty at the University of Washington. In 2019 led an effort to develop a research MRI facility at the new Center for Human Neuroscience in the Department of Psychology which he now directs. He also teaches courses on visual perception and statistics.

# 19th Annual Dinner and Demo Night

**Beach BBQ:** Monday, May 22, 2023, 6:00 – 8:00 pm, Beachside Sun Decks, limited seating in Banyan Breezeway

**Demos:** Monday, May 22, 2023, 7:00 – 10:00 pm, Talk Room 1-2

Please join us Monday evening for the 19th Annual VSS Dinner and Demo Night, a spectacular night of imaginative demos solicited from VSS members. The demos highlight the important role of visual displays in vision research and education.

Demos are free to view for all registered VSS attendees and their families and guests. The Beach BBQ is free for attendees, but **YOU MUST WEAR YOUR BADGE** to receive dinner. Guests and family members must purchase a VSS Friends and Family Pass to attend the Beach BBQ. You can register your guests at any time at the VSS Registration Desk, located in the Grand Palm Colonnade. Guest passes may also be purchased at the BBQ event, beginning at 5:45 pm.

*The following demos will be presented from 7:00 to 10:00 pm, in the Island Ballroom and Jacaranda Hall:*

## **A potpourri of motion coherence failures and anomalies**

Christopher Tyler, Smith-Kettlewell Eye Research Institute

In a motion potpourri, an alternating ring demo challenges the perceptual motion coherence mechanism with alternating rings of counter-rotating motion and has an anomalous aftereffect. Transparent random-dot motion shows a contrast-increment double-bounce effect. A static triple spiral pattern generates more motion than the Kitaoka static motion demos.

## **An Interactive Motion Perception Tool for Kindergarteners (and Vision Scientists)**

Aravind Battaje, Technische Universität Berlin, Martin Rolfs, Humboldt-Universität zu Berlin

Have you ever wondered how early visual motion perception works on a certain visual phenomena? Well, wonder no more! We present an interactive tool that lets you point your phone or laptop camera at things and immediately gain an intuition for it. Our tool extends the spatiotemporal energy model (Adelson & Bergen, 1985; Watson & Ahumada, 1985) to 3D (x-y-t) and runs real-time on most modern devices.

## **Augmented Reality Simulation of Bionic Vision**

Justin Kasowski, UC Santa Barbara, Bionic Vision Lab

The Bionic Eye. Seemingly science fiction, this concept has become a reality with one commercially available device already having ~300-400 users, and many others in clinical development. Using a virtual reality headset, users can see VSS through a simulated bionic Eye. Presented by the UCSB Bionic Vision Lab.

## **Catch me if you can: the unpursuable vortex**

Krischan Koerfer, University of Muenster, Tamara Watson, Western Sydney University, Markus Lappe, University of Muenster

A new class of motion stimuli that mimic non-rigid properties of water and fire. They can be perceived but cannot be pursued. Attempted pursuit lets one experience loss of spatial stability, making the presented vortex jump across each catch-up saccade.

## **Change blindness**

Haley Frey, Michigan State University

There are few slow change blindness stimuli for use in systematic studies, so we created some. Here, we demonstrate how effective they are at inducing change blindness!

### **Contour Erasure and Filling-in**

Yih-Shiuan Lin, University of Regensburg, Chien-Chung Chen, National Taiwan University, Mark W. Greenlee, University of Regensburg, Stuart Anstis, University of California, San Diego

Here in our demos, you will see several examples of the fascinating contour erasure effect: objects of various shapes and sizes completely disappear into the background or merge together after only a short adaptation period on their contours. We will also demonstrate the application of such effect in our contour adaptation contrast threshold paradigm.

### **Create interesting visual displays with OCTA**

Eline Van Geert, KU Leuven

Multi-element displays differ in the number and variety of elements they contain, as well as in how these elements are organized (e.g., based on color, shape, or size, and in rows, columns, or more complex organizations). Which is your favorite? Come play with the OCTA app or Python toolbox (<https://doi.org/10.3758/s13428-022-01900-w>)!

### **Delayed visual feedback**

Jeff Mulligan, Independent contractor

Introducing artificial delays in the visual consequences of a motor action can produce oscillatory behavior. The frequency of oscillation depends both on the externally applied delay, and internal delays (which vary with the type of stimulus). These effects will be demonstrated with a simple manual tracking task.

### **Flip tilt illusion – can you see these rings?**

Li Zhaoping, Max Planck Institute for Biological Cybernetics

In flip tilt illusion, the orientation of an item appears perpendicular to its actual orientation in visual periphery. I will demonstrate using some images and explain how this illusion can be understood from mechanisms of the primary visual cortex (V1) and an information bottleneck from V1 to higher visual areas.

### **Fun with Birefringent Surfaces and Polarized Light**

Andrew Piotrowski, Chloe Leroy, Howard C. Hughes (Retired), Gideon Paul Caplovitz University of Nevada Reno

What could possibly go wrong?!?

### **Going from vision research to art with stimupy**

Lynn Schmittwilken; Joris Vincent, Computational Psychology, Technische Universität Berlin

Visual stimulus design is equally science and art. Our demo is about getting creative with visual stimuli: recreate well-established phenomena, explore parameterizations, or implement your very own stimulus. For this, you will use stimupy – a Python package built exactly for that purpose: to easily create and parameterize visual stimuli.

### **High Speed Gaze-Contingent Visual Search**

Kurt Debono, Marcus Johnson, SR-Research

Try to find the target in a visual search array which is continuously being updated based on the location of your gaze. High speed video-based eye tracking combined with a high-speed monitor make for a compelling challenge.

### **Interactive virtual and real-world physics games**

Giuliana Bucci-Mansilla, Jason Fischer, Garrett Goldin, Department of Psychological and Brain Sciences, Johns Hopkins University

Come play with blocks! In our interactive physics games, you'll put your prediction skills to the test by keeping a teetering tray balanced as you unload it (extra fun when you compete with a friend) and catching virtual blocks in a real-world box in a mixed reality display.

### **It's a colourful world ... or is it?**

Katia Ripamonti, Rob Lee, Cambridge Research Systems

We perceive the world around us exquisitely colourful and deeply saturated. In a series of demonstrations based on Tyler (iPerception, 2016), Cohen et al. (PNAS, 2020) and Otten et al. (APS, 2016), we show that peripheral colour awareness may take place even in the absence of a physical correlate.

### **Let's test the Polarized contrast threshold**

Payal Sangani, L V Prasad Eye Institute

Macular pigment can be perceived as a Haidinger's Brush, an entoptic phenomena. It just takes a minute or so to screen and differentiate normal and abnormal central vision. It also checks individual's sensitivity level of polarized contrast. It can be used as a Prognostic tool for amblyopia treatment outcome.

### **Magnetic Sand Illusion**

Kensuke Shimojo, Harvard-Westlake school, Eiko Shimojo, Caltech, Daw-An Wu, Caltech, Shinsuke Shimojo, Caltech

Move one's hand closer and farther over a dynamic static noise display. The random dots appear as though they are attracted or repelled by the finger, depending on its movement.

### **McGurk 2.0 – Effects of orientation and image fidelity on the illusion**

Jonathon Toft-Nielsen, Intelligent Hearing Systems / JÖRVEC Corp, Özcan Özdamar, University of Miami

The McGurk effect is a well know auditory illusion where speech sounds are mis-categorized due to conflicting visual cues from the speaker's face. It is a salient effect that is almost impossible to ignore, but what happens to the effect when the participant doesn't recognize a face as a face?

### **Motion Pareidolia**

Nicolas Davidenko, UC Santa Cruz, Allison K. Allen, UC Santa Cruz, Nathan H. Heller, Dartmouth, Matthew T. Jacobs, Queen's University

Motion pareidolia is the perception of coherent motion in stimuli that are completely random. In this demo, you will be primed to see different motion patterns (drifting, rebounding, rotating, expanding, etc.) in randomly refreshing pixel arrays. You will also try to prime yourself, choosing what motion you want to see.

**Out of your body and into a rabbit, or a crab. Virtual reality displays from a different point of view.**

Anwasha Das, Daw-An Wu, Shinsuke Shimojo, Caltech

Using virtual reality goggles to see through a pair of cameras, you can find yourself seeing from an odd point of view, depending on how the cameras are placed. You might have an out-of-body experience, widen your field of view, or see more around the sides of an object.

### **Pictorial spacecrafts: the Ames' glass**

Maarten Wijntjes, Delft University of Technology

In his paper "The illusion of depth from single pictures", Ames describes nine ways of creating illusory depth, one of which is looking through a cylindrically curved lens. In this demo you can experience Ames' conjecture yourself but be warned, the effect tends to be idiosyncratic (i.e., does not work for everyone).

### **Saccade Sighting Showdown!**

Peter April, Jean-Francois Hamelin, Dr. Sophie Kenny, Dr. Jonathan Tong, VPixx Technologies

The PROPixx 1440Hz projector is being used to study visual processing during saccades. This year we add a game to our demo. We present a word which is only visible during your saccades. The player with the fastest word sighting wins a drink ticket!

### **StroboPong**

VSS Staff

Back by popular demand. Strobe lights and ping pong!

### **The Audiovisual Rabbit Illusion: Effects of Illusory Contours**

Matilda Cederblad, California Institute of Technology, Noelle R. B. Stiles, University of Southern California, and Caltech, Shinsuke Shimojo, Caltech, Armand R. Tanguay, Jr., University of Southern California, and Caltech

The Audiovisual Rabbit Illusion shows that the presence or absence of a sound in a flash-beep-sequence can create an illusory flash or make a veridical flash invisible. This demonstration compares the original illusion with a version that incorporates illusory contours, indicating that illusory contours can be rapidly integrated with audition.

### **The FechDeck: a handtool for exploring psychophysics**

James Ferwerda, Rochester Institute of Technology

The FechDeck is an ordinary deck of playing cards modified to support exploration of psychophysical methods. The deck allows users to conduct threshold experiments using Fechner's methods of adjustment, limits, and constant stimuli, scaling experiments using Thurstone's ranking, pair comparison, and category methods, and Stevens' method of magnitude estimation.

### **The UW Virtual Brain Project™: Virtual reality exploration of the visual, auditory, and touch systems**

Melissa Schoenlein, Department of Psychology, Wisconsin Institute for Discovery; University of Wisconsin-Madison, Nathaniel Miller, University of Minnesota Medical School, Chris Racey, Psychology, University of Sussex, Simon Smith, Wisconsin Institute for Discovery, University of Wisconsin-Madison, Ross Treddinick, Wisconsin Institute for Discovery, University of Wisconsin-Madison, Kudirat Alimi, Wisconsin Institute for Discovery, University of Wisconsin-Madison, Chris Castro, College of Engineering, University of Wisconsin-Madison, Bas

Rokers, Department of Psychology, New York University, Abu Dhabi, Karen B. Schloss, Department of Psychology, University of Wisconsin-Madison; Wisconsin Institute for Discovery, University of Wisconsin-Madison

Explore the UW Virtual Brain Project – visual, auditory, and touch system lessons in virtual reality or on a desktop display. Each lesson provides an immersive experience of information flow from sensory input to cortical processing. Evidence suggests these experiences are fun and easy to use, which can advance neuroscience education.

### **The Weak conquer the Strong**

Adam Reeves, Northeastern University, Quan Lei, Wichita State University

When mixed with an equal number of less salient (grey) disks, a set of salient (white) disks looks less numerous. The grey disks are unaffected by the white disks. This illusion was already published in JoV and followed up in Frontiers. We will show the original effect with new variations.

### **Triangles are AMAZING!!!**

Tess White, Madalyn Sawatzky, Drew Asborn, Seth Freese, Gideon Caplovitz, University of Nevada, Reno

Triangles aren't usually considered in visual perception, but they have some amazing properties that make them so special! Come explore the wonderful world of triangles with us!

### **Vision's Chainsaw**

Patrick Cavanagh, Glendon College, Stuart Anstis, UCSD

Moving frames can displace the apparent location of brief flashes presented at the moment the frame changes direction. We use this here to attempt a never before captured dismemberment of the human body. This is a live, so to speak, presentation and we invite observers to step up and be severed. Sorry, served.

### **Why do rigid objects look non-rigid?**

Akihito Maruya, Qasim Zaidi, State University of New York, College of Optometry

Two solid rings rigidly linked at an angle and rolled together are seen as non-rigidly wobbling. Using computer graphics, we show that the perceived non-rigidity depends on speed and ring shape. Using model simulations, we show why the percepts depend on shape-based prior assumptions and properties of motion mechanisms.

# Public Lecture – Rowan Candy



## Rowan Candy

*Professor of Optometry, Vision Science and Neuroscience, Indiana University, Bloomington, Indiana*

## Seeing through the eyes of a baby

*Sunday, May 21, 2023, 1:00 – 2:00 pm, Enoch Davis Center located at 1111 18th Ave South, St. Petersburg, 33705*



Have you wondered what a baby can see? Can they see colors? Can they see in 3D? Is their vision blurred? This talk will cover our current understanding of how vision develops during infancy and early childhood and the types of clinical conditions that young children might develop.

**Rowan Candy** is a clinician scientist who investigates the development of vision. She studies how infants interact with their natural visual environment, in particular asking how well they are able to focus and align their eyes with the goal of preventing common visual disorders. She studied at the University of Wales and UC Berkeley, and is currently a Professor of Optometry, Vision Science and Neuroscience at Indiana University.

### About the VSS Public Lecture

The annual public lecture represents the mission and commitment of the Vision Sciences Society to promote progress in understanding vision and its relation to cognition, action and the brain. As scientists we are obliged to communicate the results of our work, not only to our professional colleagues, but also to the broader public. This lecture is part of our effort to give back to the community that supports us.

### Attending the VSS Public Lecture

Admission to the Public Lecture is free. The lecture will be held on Sunday, May 21 at 1:00 pm at the at the [Enoch Davis Center](#) located at 1111 18th Ave South, St. Petersburg, 33705.

The Enoch Davis Center is a seven mile drive from the TradeWinds Island Grand Resort (see [directions](#)).



# Attendee Resources

## Abstract Numbering System

Each abstract is assigned a unique 4 or 5-digit number based on when and where it is being presented. Talk presentations are a 4-digit number and Poster presentations are a 5-digit number (the last two digits of a poster are the board number). See [Abstract Numbering](#).

## ATM

An ATM is located in the main lobby of the hotel. A second ATM can be found in the lobby of the Breckenridge Building.

## Audiovisual Equipment for Talks

LCD projectors are provided in the talk rooms for giving slide presentations. Computers are NOT provided. Presenters must bring their own laptop computers and set them up BEFORE the start of the session in which they are presenting. Please review the [Talk Presentation Instructions](#) for more information.

For speakers who cannot bring a laptop, there is a loaner Windows PC laptop available in the talk room. Please make advance arrangements with Jeff Wilson at the VSS Registration Desk.

## Baggage Check

Bags can be checked with the Bell Hop in the main lobby.

## Business Center

The Business Center is located in the hotel lobby. Computer terminals are available in both the Social Lounge and the Quiet Lounge. A printer is available in the VSS Social Lounge.

## Business Meeting

The VSS Business Meeting is Tuesday, May 23, 12:30 – 1:00 pm in Talk Room 2. All VSS members are encouraged to attend. This is your opportunity to hear about VSS, ask questions, and give feedback.

## Cashless Property

TradeWinds Island Resorts is now a cashless property with cash no longer accepted for payment throughout the properties. There are “Cash to Card” machines at both Island Grand Beach Resort and RumFish Beach Resort. These machines work as a reverse ATM (without the fees) converting cash to pre-paid debit cards that can be used anywhere. Employee partners are still able to accept cash for gratuities, but they will not be able to make change onsite.

## Certificates of Attendance

Certificates of Attendance will be available in your VSS account the last day of the meeting. If you require additional assistance, visit the Registration Desk.

## Code of Conduct

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embraces diversity. To help ensure these goals, each presenter, speaker, and attendee must adhere to the [Code of Conduct](#).

## Contact Us

If you need to reach VSS meeting personnel while at the meeting, call extension 7814 from a house phone. From outside the hotel, call (727) 367-6461, extension 7814. VSS staff can also be reached by email at [vss@visionsciences.org](mailto:vss@visionsciences.org).

## Cyber Lounge

The Cyber Lounge has merged with the Social Lounge this year. Computer terminals are available in both the Social Lounge and the Quiet Lounge. A printer is available in the Social Lounge.

## Disclaimer

The Program Committee reserves the right to change the meeting program at any time without notice. Please note that this program was correct at the time of printing.

## Drink Tickets

Each attendee will receive two “free drink” tickets which may be redeemed at the Opening Night Reception (May 19), Demo Night (May 22), or Club Vision (May 23).

## Exhibits

All exhibits are located in the Pavilion. See our list of [Exhibitors](#) and the Exhibits Floor Plan (*coming soon*).

## Exhibit Hours

Saturday, May 20, 8:00 am – 5:30 pm

Sunday, May 21, 8:00 am – 5:30 pm

Monday, May 22, 8:00 am – 12:30 pm

Tuesday, May 23, 8:00 am – 5:30 pm

## Exhibitor Setup and Tear down

Setup: Friday, May 19, 4:00 – 7:00 pm and Saturday, May 20, 7:00 – 9:00 am

Tear down: Tuesday, May 23, 5:30 – 7:30 pm

## Fitness Center

The RumFish Beach Resort fitness center is open 24/7 with a room key. The Center is available to attendees staying at either of the TradeWinds hotels. The TradeWinds Island Grand fitness center is currently closed.

## Food Service/Catering

Complimentary coffee and tea, as well as a light continental breakfast is available each morning in the Garden Courtyard and the Pavilion. Coffee, tea, and refreshments will also be served each afternoon between afternoon talk sessions.

Your VSS registration includes a reception and a dinner. The Opening Night Reception is held on Friday night and the Demo Night BBQ dinner is held on Monday night. Both events take place on the beach (weather permitting). Attendees may purchase a [Friends & Family Pass](#), which will allow their guests to attend the food and social events.

Each attendee will be given two “free drink” tickets, good at the Opening Night Reception, Demo Night, and Club

Vision.

The VSS schedule provides a generous two-hour lunch period to take advantage of the beautiful surroundings and amenities of the TradeWinds Island Grand Hotel and the RumFish Beach Resort.

Note: VSS meeting attendees will receive a 10% discount on all food and beverage purchases in ALL TradeWinds Islands Resorts restaurants and bars. You must present your VSS badge to receive the discount.

The 10% discount does not apply to food or drinks at VSS events, such as the Opening Night Reception, Demo Night, or Grab and Go Lunches. Discounted pricing has already been applied to these functions.

### **Grab and Go Lunches**

The TradeWinds will offer a selection of reasonably-priced lunch items just for VSS attendees.

Friday – Sunday, Tuesday 11:30 am – 2:30 pm, in the Garden Courtyard

Monday, 11:30 am – 2:30 pm, in the Grand Palm Colonnade

### **Friends & Family Pass**

The [Friends & Family Pass](#) allows your family to enjoy our many fun VSS social events. For \$60.00, your travel companion can attend the Opening Night Reception, Demo Night, as well as enjoy all Coffee/Snack Breaks and the Daily Continental Breakfast! Passes are only \$60.00 for adult guests and \$20.00 for children ages 6 through 12. Children under the age of 6 are free. To purchase a Family & Friends Pass, please visit the VSS Registration Desk onsite.

Passes are required for entrance to all social events and meals, including the Friday evening Welcome Reception and Monday evening Demo Night.

Note: The Friends & Family Pass does not cover entrance to the scientific sessions. For a guest pass to a scientific session, please inquire at the VSS Registration Desk. For more information, please see Guests below.

### **Guests**

Guests are allowed complimentary entry into one VSS session to see the poster or talk of the person they are guests of at the meeting.

Guests must register at the VSS Registration Desk upon arrival and must be accompanied by a VSS attendee.

Guests must wear their guest badge for entrance into the session they attend.

To attend social functions, including the Opening Night Reception, Demo Night BBQ, Coffee/Snack Breaks and Daily Continental Breakfast, attendees' guests will need to purchase a [Friends & Family Pass](#), available at the VSS Registration Desk.

### **Health Protocols**

We strongly encourage attendees to ensure their COVID-19 vaccinations are up to date prior to the meeting.

Attendees are strongly encouraged to wear masks indoors. Masks will be available at the VSS Registration Desk.

See [Health and Safety Protocols](#).

### **Internet Access**

VSS provides free wireless internet access in the meeting areas, guest rooms, and VSS lounges. In the VSS meeting space, connect to **twgroup**; password is **group5500**. In the hotel common areas and sleeping rooms connect to **TW**; password is **guest5500**.

If you did not bring your own computer, a limited number of laptop computers with free internet access are available for your use in both the Quiet and Social Lounges.

## **Lost and Found**

The Lost and found is located at the VSS Registration Desk in the Grand Palm Colonnade.

## **Lounges**

VSS offers two lounge areas exclusively for meeting attendees:

### **Quiet Lounge**

The VSS Quiet Lounge is designed especially for attendees who need a quiet place to read, work, silently meditate, or relax. There are two laptops available. The Quiet Lounge is located in the Glades room in Jacaranda Hall.

Quiet Lounge Hours:

Friday – Sunday, 7:30 am – 9:30 pm

Monday, 7:30 am – 12:30 pm

Tuesday, 7:30 am – 9:30 pm

Wednesday, 7:30 am – 12:30 pm

### **Social Lounge**

The VSS Social Lounge features comfortable seating for relaxing and visiting with colleagues. There are two laptops and a printer available, as well as phone charging stations. The Social Lounge is located in the Banyan/Citrus room in Jacaranda Hall.

Social Lounge Hours:

Friday – Sunday, 7:30 am – 9:30 pm

Monday, 7:30 am – 12:30 pm

Tuesday, 7:30 am – 9:30 pm

Wednesday, 7:30 am – 12:30 pm

## **Message Center**

Messages for registrants can be left and retrieved at the VSS Registration Desk. A bulletin board will be available in the Grand Palm Colonnade for announcements and job postings.

## **Networking Events**

### **Visibility: A Gathering of LGBTQ+ Vision Scientists and Friends**

Friday, 8:30 – 9:30 pm

Garden Courtyard

### **Inclusivity Roundtables**

Saturday, 12:45 – 2:15 pm

Jasmine/Palm

### **Undergraduate Meet and Greet**

Monday, 2:30 – 3:30 pm

Pirate Island

### **Meet the Professors**

Monday, 3:30- 5:00 pm

Banyan Breezeway

### **Connect with Industry**

Tuesday, 1:00 – 2:30 pm

Blue Heron

### **Moderators**

Please arrive at the meeting room 30 minutes prior to the start of your session to allow time for setup and to check in with your speakers. See [Moderator Instructions](#).

### **Parking**

Complimentary self-parking is available to all meeting attendees. Access is through the Island Grand guard gate. Valet parking is available at the TradeWinds Grand Island Resort lobby for an additional fee.

### **Phone Charging Station**

Phone charging stations will be located at the VSS Registration Desk and in the VSS Social Lounge.

### **Photographing/Videotaping Presentations**

Unless otherwise noted, photographing and videotaping posters and talks is permitted at VSS. Presenters who do NOT wish to be photographed or videotaped should indicate this by displaying our “[No videos and photos](#)” image on their poster or the title slide at the beginning of their talk. The image can be downloaded from the VSS website or you can pick up a printed version at the Registration Desk.

### **Poster Sessions**

All poster sessions are held in Banyan Breezeway and the Pavilion. The last three digits of your poster number indicate the number of your poster board. See [Abstract Numbering](#).

Posters should be put up at the beginning of a session and taken down at the end. Authors of even numbered posters are expected to be present at their posters during the entire “Even Authors Present” time, and authors of odd numbered posters are expected to be present at their posters during the entire “Odd Authors Present” time. Authors may be present during the entire session, if desired. Abstracts not presented at the meeting during the designated author present time will not be published in the *Journal of Vision*. See [Poster Presentation Instructions](#).

Please be courteous and take down your poster promptly at the end of the session so that the board is empty when the next presenter arrives to put up their poster.

Push pins are available for your use and are located in the Banyan Breezeway and Pavilion.

### **Printing**

Need your poster printed? The local [UPS](#) store offers a variety of services.

### **Quiet Lounge**

See [Lounges](#).

### **Registration**

The Registration Desk is located in the Grand Palm Colonnade. The Registration Desk is open during the

following times:

Friday, May 19, 8:00 am – 6:00 pm

Saturday, May 20, 7:30 am – 6:45 pm

Sunday, May 21, 7:30 am – 6:45 pm

Monday, May 22, 7:45 am – 1:30 pm

Tuesday, May 23, 7:45 am – 6:45 pm

Wednesday, May 24, 7:45 am – 12:45 pm

## Shipping

To ship your poster or other items home from the meeting, ask for the Concierge at the front desk of the TradeWinds Island Grand.

## Social Lounge

See [Lounges](#).

## Spa Services

The BodyWorks Spa is located at RumFish Beach Resort inside the Loggerhead Building. The Spa is open Daily from 9:00 am – 5:00 pm. For appointments call 727.363.2348 or extension 6019 from your room. Appointments must be made 24 hours in advance.

## Speakers

Please arrive at the meeting room 30 minutes prior to the start of your session to allow time for setup and to check your presentation. Please see [Talk Presentation Instructions](#).

## Student Events

### **Workshop for PhD Students and Postdocs: Strategies for Funding your Research Ideas Around the Globe**

Saturday, 12:45 – 2:15 pm

Sabal/Sawgrass

### **Career Transitions Workshop, Part 1: Early Career Panel**

Sunday, 7:30 – 8:30 pm

Jasmine/Palm

### **Career Transitions Workshop, Part 2: Where do I go from here? Round Table Discussion**

Sunday, 8:45 – 9:45 pm

Garden Courtyard

### **Undergraduate Meet and Greet**

Monday, 2:30- 3:30 pm

Pirate Island

### **Meet the Professors**

Monday, 3:30- 5:00 pm

Banyan Breezeway

# Code of Conduct

The Vision Sciences Society (VSS) is dedicated to the open exchange of ideas and the freedom of thought and expression. We are committed to running a successful meeting that fosters collegiality and celebrates the diversity of the Vision Sciences community. These aims and goals require an environment that recognizes the inherent worth of every person and group, that fosters dignity, understanding, and mutual respect, and that embraces diversity.

To help ensure these goals, each presenter, speaker, and attendee must adhere to the following code of conduct. The expected behavior extends to all sessions, activities, events, and informal gatherings during the conference and to any other activities, in-person or virtual, sponsored or managed by VSS.

Participants who do not comply may be barred from attending the remainder of the VSS conference or barred from participating in other VSS activities or meetings, in-person or virtual. The home institution or employer may be informed of allegations against or violations by their faculty members, trainees, employees, or affiliates.

## General Behavior

Participants are expected to respect one another and behave in a civil fashion. Members should respect common sense rules for public behavior, personal interaction, common courtesy, and respect for all meeting participants.

## Anti-Discrimination

VSS prohibits discrimination at its meeting against individuals on the basis of factors such as race, color, sex, sexual orientation, gender identity or expression, age, marital status, religion, national origin, ancestry, socio-economic status, physical appearance, or different abilities.

## Anti-Harassment

To promote an environment that recognizes the inherent worth of every person and group, VSS is dedicated to providing its members and meeting attendees a harassment-free experience. Harassment is unwelcome or hostile behavior, including speech that intimidates or interferes with a person's participation or opportunity for participation in a conference, event, or program.

Harassment in any form, including but not limited to, harassment based on national origin, race, religion, sex, gender, or any other status protected by laws in which the conference or program is being held, will not be tolerated. Harassment includes the use of abusive or degrading language or gestures, intimidation, stalking, harassing photography or recording, inappropriate physical contact, and unwelcome sexual attention.

## Other Unacceptable Behavior

- Publicly sharing screen shots, photographs, video, or audio recording of oral or poster presentations, slides, or question periods without the consent of presenters and/or contributors.
- Making VSS events and resources available to others outside one's immediate laboratory when membership or registration is required for access. When participating in events, in-person or virtual, attendees must use their own name and not attempt to misrepresent themselves in any way.
- Gaining unauthorized access or making malicious changes to the conference website, conference hosting tools, or any related systems.
- Collecting data without ensuring protocols are in accordance with governing ethical and legal standards.

- Fabrication or misrepresentation of data presented at the conference.
- Inappropriate use of nudity, sexual images, or images that would be reasonably found offensive by the membership.
- Real or implied threat of professional or financial damage or harm.

Violations of code of conduct can be reported to any of the members of the [VSS Board of Directors](#) or to [Shauney Wilson](#), the VSS Executive Director and Event Director. Any reports will be handled in the strictest confidence.

Policies have been adapted from other sources including SIGGRAPH and Association for Psychological Sciences.



# Canadian Vision Science Social

*Sunday, May 21, 2023, 12:30 – 2:30 pm, Sabal/Sawgrass*

**Organizers:** Caitlin Mullin, Vision: Science to Applications (VISTA) York University; Doug Crawford, Vision: Science to Applications (VISTA) York University

**Speaker:** Doug Crawford, Vision: Science to Applications (VISTA) York University

This social event is open to any VSS member who is, knows, or would like to meet a Canadian Vision Scientist! Join us for casual discussions with students and faculty from several Canadian Institutes or to just satisfy your curiosity as to why we in the North are so polite and good natured, Eh? We particularly encourage trainees and scientists who would like to learn about the various opportunities available through York's Vision: Science to Applications (VISTA) program. So grab your toques and your double-double and come connect with your favourite Canucks. This event will feature free food and refreshments, with a complimentary beverage for the first 100 attendees. This event is sponsored by the York Centre for Vision Research and VISTA, which is funded in part by the Canada First Research Excellence Fund (CFREF).



# Opening Night Reception

*Friday, May 19, 2023, 7:00 pm – 9:30 pm, Beachside Decks*

Save Friday evening for the spectacular VSS Opening Night Reception! The reception will take place on the beach and beachside sundecks from 7:00 – 9:30 pm.

Don't forget your drink tickets, which can be found in the back of your badge. Your drink tickets are also good at Demo Night and Club Vision. Friends and family may accompany you with the purchase of a [Friends and Family Pass](#). See the Registration Desk to purchase passes.

Prepare to sink your toes into the sand and enjoy this fantastic event! Please remember to wear your badge.

# Computational and Mathematical Models in Vision (MODVIS)

*Thursday, May 18, 2023, 9:00 am – 6:00 pm, Blue Heron*

*Friday, May 19, 2023, 9:00 am – 12:00 pm, Blue Heron*

**Organizers:** Marianne Maertens, Technische Universität Berlin; Jeff Mulligan, Freelance Vision Scientist; Zygmunt Pizlo, UC Irvine; Anne B. Sereno, Purdue University; Qasim Zaidi, SUNY College of Optometry

Contributed scientific talks, with coffee service and morning snacks. More information about the workshop, including how to register, can be found at the workshop website <https://www.purdue.edu/conferences/events/modvis/>.

# phiVis: Philosophy of Vision Science Workshop

*Tuesday, May 23, 2023, 12:30 – 2:30 pm, Jasmine/Palm*

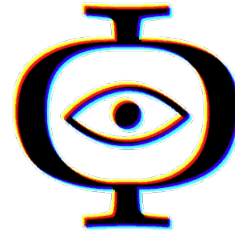
**Organizers:** Chaz Firestone, Department of Psychological and Brain Sciences, Johns Hopkins University; Kevin Lande, Department of Philosophy & Centre for Vision Research, York University; Jorge Morales, Departments of Psychology and Philosophy, Northeastern University

**Speakers:** Wayne Wu (Carnegie Mellon), with comments from Ruth Rosenholtz (MIT); Madeleine Ransom (University of British Columbia), with comments from Isabel Gauthier (Vanderbilt); Jake Quilty-Dunn (Washington University-St. Louis), with comments from Yaoda Xu (Yale)

The past decade has seen a resurgence in conversation between vision science and philosophy of perception on questions of fundamental interest to both fields, such as: What do we see? What is seeing for? What is seeing? The phiVis workshop is a forum for continuing and expanding this interdisciplinary conversation. Short talks by philosophers of perception that engage with the latest research in vision science will be followed by discussion with a slate of vision scientists.

Conversations between philosophers of vision and vision scientists have enriched research programs in both fields. On the one hand, the latest generation of philosophers of vision are deeply immersed in the scientific literatures on natural scene statistics, visual short-term memory, ensemble perception, contour integration, amodal completion, visual salience, multi-sensory integration, visual adaptation, and much else. On the other hand, vision scientists have found a great deal of value in responding to and thinking together with philosophers about the mechanisms and effects of perceptual constancies, attentional selection, object perception, and perceptual uncertainty, to name just a handful of topics. These conversations are not only intrinsically interesting for everyone involved, they have been fruitful sources of research and collaboration. However, opportunities for dialogue are all too rare, often occurring only through chance interactions or one-off workshops. The phiVis satellite is meant to be a platform to extend these discussions.

For more information, visit: <https://www.phivis.org/>



VSS SATELLITE  
PHILOSOPHY OF  
VISION SCIENCE  
WORKSHOP

# Pre-Data-Collection Poster Session

*Monday, May 22, 2023, 2:00 – 4:00 pm, Jasmine/Palm*

**Organizers:** Sabrina Hansmann-Roth, University of Iceland; Bjoern Joerges, York University; William Ngiam, University of Chicago; Janna Wennberg, University of California

It is customary for conference posters to contain at least preliminary results. However, feedback and suggestions with regards to the experimental design – a major benefit of poster sessions – would be most helpful **before** data collection has started. In hopes of achieving this, we will be hosting a **pre-data collection poster session**.

Receiving feedback at this early stage promotes rigorous and impactful science – researchers can identify confounds, hidden assumptions, or other concerns that would likely be raised by reviewers. This cuts down research waste as suggested changes can be implemented before resources are committed. Researchers may even learn of similar studies and potential issues, helpful resources, or opportunities for collaborations between labs. This mirrors Registered Reports, an Open Science initiative, where peer review of a pre-registration occurs before data is collected.

Interested VSS attendees will be asked to sign up by indicating their research topic and a short (250 word) description of their research idea and preliminary design. Registration for this event will be **just-in-time** (deadline: **May 1**). Those selected will be asked to prepare a conference poster which focuses on the theoretical background of the study and their proposed study methods. There will be a maximum of 40 posters, and spots will be granted on a first come, first serve basis.

We are aware that, under an adversarial, competitive view of academia, this event may place presenters in a vulnerable position – participation publicizes research ideas without allowing them to formally lay claim through a publication. We encourage poster viewers to be mindful, using this event to establish collaboration with presenters and improve science. We will be creating an Open Science Framework Meetings page if presenters wish to upload their pre-data posters, providing a verification and timestamp of their research proposals. However, ultimately if you are worried about getting scooped, presenting your idea at this event might not be the right decision for you.

If you want to present a poster on your proposed research design, you can **submit your abstract using this [Google Form](#)**. If you merely want to browse and comment on the posters, no registration is necessary.

**Update May 2nd: Submissions are still open, but please send us a note ([bjorges@yorku.ca](mailto:bjorges@yorku.ca)) to make sure that we process your submission promptly.**

# What's (not) in a name: Guidelines for replicable projector-based vision experiments

*Friday, May 19, 2023, 9:00 – 11:30 am, Jasmine/Palm*

**Organizer:** Dr. Sophie Kenny, Staff Scientist at VPiXX Technologies

While most vision researchers use flat-panel displays for their experiments, many also use projection systems due to their extensive range of potential applications. Projectors can be a practical solution for environments sensitive to magnetic fields (fMRI, MEG, OPM), produce a wide range of image sizes, and can often implement otherwise impossible research protocols.

The flip side of this flexibility is that few projector installations are alike, and this variability has consequences. Choices of model, manufacturer, imaging technology, projection screens, and even the equipment and observer's relative positions can influence the final appearance of stimuli or introduce artifacts. However, published papers rarely include the information that the reader or editor requires to judge whether artifacts are likely to be present and whether they might be significant enough to influence the interpretation of results.

In this educational session, we will present various research applications of projector displays and outline the consequences different choices may have on spatial uniformity, image content, brightness and contrast, stereo crosstalk, and more. Throughout the presentation, we will share guidelines to help researchers navigate the process of installing a new projector-based psychophysics laboratory, characterize current setups, and compare data collected across research laboratories and environments.

To help us plan this event, please send an email to signal your interest to [scientist@vpixx.com](mailto:scientist@vpixx.com)

VPiXX is a privately held company serving the vision research community by developing innovative hardware and software tools for vision scientists (<http://www.vpixx.com>). For more general educational content, visit the VPiXX Online Classroom and Library (VOCAL): [www.vpixx.com/vocal](http://www.vpixx.com/vocal)



VPiXX Technologies Inc.  
[www.vpixx.com](http://www.vpixx.com)

# Visibility: A Gathering of LGBTQ+ Vision Scientists and Friends

Friday, May 19, 2023, 8:30 – 9:30 pm, Garden Courtyard

**Organizers:** Michael Grubb, Trinity College; Alex White, Barnard College

LGBTQ students are disproportionately likely to drop out of science early. Potential causes include the lack of visible role models and the absence of a strong community. This social event is one small step towards filling that gap and will bring awareness to continuing challenges for queer scientists.



Please join us towards the end of the opening night reception, in the Garden Court (located between the Jacaranda building and the Grand Palm Colonnade).

All are welcome. Snacks, drinks, and camaraderie will be provided.



# Virtual Reality + Eye Tracking for Research

*Saturday, May 20, 2023, 12:45 – 2:15 pm, Blue Heron*

**Organizers:** Sado Rabaudi, Product Manager, Solutions Architect, WorldViz; Dan Tinkham, Head Of Sales, Americas, WorldViz

WorldViz VR will give an educational seminar and hands-on demonstration of the latest virtual reality and mixed reality consumer devices with built in eye tracking and will explain how this equipment can be used in a research context. This presentation will include a high level overview of virtual reality and mixed reality key concepts as well as explanations for how to create custom immersive experiments using the latest software, including a demonstration of the SightLab VR Pro drag-and-drop VR + eye tracking toolkit. WorldViz VR will also provide examples of notable publications and successful use cases for virtual reality + eye tracking research across various academic disciplines. Participants will walk away with a better understanding of currently available immersive technology and how they can use it in their own research – they may be surprised how easy it is.





# Symposia

## Critical Perspectives On Vision Science: Towards Unbiasing Our Methods and Role in Knowledge Production

Organizers: Eline Kupers<sup>1</sup>, Kathryn Graves<sup>2</sup>, Kimele Persaud<sup>3</sup>; <sup>1</sup>Stanford University, <sup>2</sup>Yale University, <sup>3</sup>Rutgers University

## How does the brain combine generative models and direct discriminative computations for visual inference?

Organizers: Benjamin Peters<sup>1</sup>, Nikolaus Kriegeskorte<sup>1</sup>; <sup>1</sup>Columbia University

## The Active Fovea

Organizers: Martina Poletti<sup>1</sup>, Martin Rolfs<sup>2</sup>, Jude Mitchell<sup>1</sup>; <sup>1</sup>University of Rochester, <sup>2</sup>Humboldt-Universität

## The development of categorical object representations: bridging visual neuroscience and deep learning

Organizers: Marieke Mur<sup>1</sup>; <sup>1</sup>Western University

## Object representations in the parietal cortex

Organizers: Erez Freud<sup>1</sup>, Maryam Vaziri Pashkam<sup>2</sup>, Yaoda Xu<sup>3</sup>; <sup>1</sup>York University, <sup>2</sup>National Institute of Mental Health, <sup>3</sup>Yale University

## Continuous psychophysics

Organizers: Johannes Burge<sup>1</sup>, Kathryn Bonnen<sup>2</sup>; <sup>1</sup>University of Pennsylvania, <sup>2</sup>Indiana University

# Symposia

## Critical Perspectives On Vision Science: Towards Unbiasing Our Methods and Role in Knowledge Production

*Friday, May 19, 2023, 12:00 - 2:00 pm EDT, Talk Room 1*

Organizers: Eline Kupers<sup>1</sup>, Kathryn Graves<sup>2</sup>, Kimele Persaud<sup>3</sup>; <sup>1</sup>Stanford University, <sup>2</sup>Yale University, <sup>3</sup>Rutgers University

Presenters: Sholei Croom, Pawan Sinha, Jasmine Kwasa, Joel E Martinez, Vassiki S Chauhan

Discussions around Diversity, Equity, and Inclusion (DEI) have become commonplace in academia and have resulted in new institutional policies to promote the success of underrepresented populations. But how do we, as a vision science community with various subfields, theoretical constructs, and methodologies, address DEI issues in our research? The goal of this symposium is to provide a critical lens to the history of vision science as a knowledge production process, identify biases and discrepancies in our current methods, and highlight specific solutions to make vision science, as well as our community, more inclusive and impactful.

### **Presentations**

#### **Making the Case for Critical Vision Science: Beyond Diversity, Equity and Inclusion**

Sholei Croom<sup>1</sup>; <sup>1</sup>Johns Hopkins University

#### **Looking Beyond Parochial Participant Pools**

Pawan Sinha<sup>1</sup>; <sup>1</sup>Massachusetts Institute of Technology (MIT)

#### **Addressing Racial and Phenotypic Bias in Human Neuroscience Methods**

Jasmine Kwasa<sup>1</sup>; <sup>1</sup>Carnegie Mellon University

#### **Facecraft: Race Reification in Psychological Research with Faces**

Joel E Martinez<sup>1</sup>; <sup>1</sup>Harvard University

#### **Scientists in Context**

Vassiki S Chauhan<sup>1</sup>; <sup>1</sup>Barnard College

# Symposia

## How does the brain combine generative models and direct discriminative computations for visual inference?

*Friday, May 19, 2023, 12:00 - 2:00 pm EDT, Talk Room 2*

Organizers: Benjamin Peters<sup>1</sup>, Nikolaus Kriegeskorte<sup>1</sup>; <sup>1</sup>Columbia University

Presenters: Benjamin Peters, Ralf Haefner, Divya Subramanian, Doris Tsao, Thomas Naselaris

A prevalent view in vision science is that of vision as an inference process, where sensory evidence is evaluated in the context of a generative model that captures prior knowledge about the world. In this conception, visual inference is thought to involve top-down predictions of sensory data serving to evaluate the likelihood of alternative hypotheses. An alternative conception describes vision as a sequence of largely feedforward discriminative computations that filter and transform the visual information so as to represent behaviorally relevant information. This symposium will seek a unified understanding of how primate vision might combine generative models and discriminative computations.

### **Presentations**

#### **Naturalistic primate vision combines generative and discriminative computations**

Benjamin Peters<sup>1</sup>; <sup>1</sup>Columbia University

#### **Behavioral and neural evidence that the visual system performs approximate inference in a hierarchical generative model**

Ralf Haefner<sup>1</sup>; <sup>1</sup>University of Rochester

#### **Bayesian and Discriminative Models for Visual Stability across Saccades**

Divya Subramanian<sup>1,2</sup>, John M. Pearson<sup>1</sup>, Marc A. Sommer<sup>1</sup>; <sup>1</sup>Duke University, <sup>2</sup>National Institutes of Health (NIH)

#### **Probing for the existence of a generative model in the macaque face patch system**

Doris Tsao<sup>1,2</sup>; <sup>1</sup>UC Berkeley, <sup>2</sup>Howard Hughes Medical Center

#### **Why is the human visual system generative?**

Thomas Naselaris<sup>1</sup>; <sup>1</sup>University of Minnesota

# Symposia

## The Active Fovea

Friday, May 19, 2023, 2:30 - 4:30 pm EDT, Talk Room 1

Organizers: Martina Poletti<sup>1</sup>, Martin Rolfs<sup>2</sup>, Jude Mitchell<sup>1</sup>; <sup>1</sup>University of Rochester, <sup>2</sup>Humboldt-Universität

Presenters: Wolf Harmening, Martina Poletti, Hamutal Slovin, Lisa Kroell, Shanna Coop, Tong Zhang

This symposium will take the audience on a journey from the earliest steps of foveal processing at the retinal level to cortical processing in V1 and beyond. It will show how vision and oculomotor behavior are constantly intertwined at each level of processing to the point that behavior becomes an integral part of vision even at its finest scale. We will showcase the most recent advances in the field achieved with a blend of cutting-edge technologies and experimental techniques to propose a new, active view of foveal vision encompassing its interaction with fixational eye movements, saccades and peripheral vision.

### Presentations

#### **Non-random fixational drift and sub-cone resolution in the human fovea**

Wolf Harmening<sup>1</sup>, Jenny Witten<sup>1</sup>; <sup>1</sup>University of Bonn, Department of Ophthalmology, Ernst-Abbe-Str. 2, 53127 Bonn, Germany

#### **The nonhomogeneous foveola and the need for active vision at this scale**

Martina Poletti<sup>1</sup>, Ashley Clark<sup>1</sup>, Sanjana Kapisthalam<sup>1</sup>, Yue Zhang<sup>1</sup>; <sup>1</sup>University of Rochester

#### **A two-phase extra-retinal input into monkey's V1: the effect of fixational saccades on population responses**

Hamutal Slovin<sup>1</sup>, Nativ Yarden<sup>1</sup>, Bouhnik Tomer<sup>1</sup>; <sup>1</sup>The Leslie and Gonda (Goldschmied) Multidisciplinary Brain Res. Ctr., Bar-Ilan Univ., Ramat Gan, Israel

#### **Foveal vision anticipates defining features of eye movement targets: converging evidence from human psychophysics**

Lisa Kroell<sup>1,2</sup>, Martin Rolfs<sup>1,2,3,4</sup>; <sup>1</sup>Department of Psychology, Humboldt-Universität zu Berlin, Germany, <sup>2</sup>Berlin School of Mind and Brain, Humboldt-Universität zu Berlin, Germany, <sup>3</sup>Exzellenzcluster Science of Intelligence, Technische Universität Berlin, Germany, <sup>4</sup>Bernstein Center for Computational Neuroscience Berlin, Germany

#### **Enhanced feature tuning for saccade targets in foveal but not peripheral visual neurons**

Shanna Coop<sup>1</sup>, Jacob Yates<sup>2</sup>, Jude Mitchell<sup>3</sup>; <sup>1</sup>Neurobiology, Stanford University, USA, <sup>2</sup>Department of Biology, University of Maryland College Park, USA, <sup>3</sup>Brain and Cognitive Sciences, University of Rochester, USA

#### **From the fovea to the periphery and back: mechanisms of trans-saccadic visual information transfer in the superior colliculus**

Tong Zhang<sup>1,2</sup>, Ziad Hafed<sup>1,2</sup>; <sup>1</sup>Werner Reichardt Center for Integrative Neuroscience, University of Tübingen, Tübingen, Germany 72076, <sup>2</sup>Hertie Institute for Clinical Brain Research, University of Tübingen, Tübingen, Germany 72076

# Symposia

## The development of categorical object representations: bridging visual neuroscience and deep learning

*Friday, May 19, 2023, 2:30 - 4:30 pm EDT, Talk Room 2*

Organizers: Marieke Mur<sup>1</sup>; <sup>1</sup>Western University

Presenters: Heather L Kosakowski, Michael J Arcaro, Katharina Dobs, Talia Konkle, Marieke Mur

The primate visual cortex develops rapidly over the first years of life. During this early learning period, object representations in high-level visual cortex begin to emphasize categories of ecological relevance such as faces and animals. How these categorical object representations emerge over the course of development is not well understood. Is development solely driven by visual experience? What constraints may additionally shape the development of categorical object representations? This symposium seeks to answer these key questions by integrating the latest work on visual object learning in the fields of developmental and computational neuroscience.

### **Presentations**

#### **Parallel development of cortical regions that support higher-level vision and cognition**

Heather L Kosakowski<sup>1</sup>; <sup>1</sup>Harvard University

#### **Topographic constraints on visual development**

Michael J Arcaro<sup>1</sup>; <sup>1</sup>University of Pennsylvania

#### **Using deep neural networks to test possible origins of human face perception**

Katharina Dobs<sup>1</sup>; <sup>1</sup>Justus-Liebig University Giessen

#### **Leveraging deep neural networks for learnability arguments**

Talia Konkle<sup>1</sup>, Colin Connell<sup>1</sup>, Jacob Prince<sup>1</sup>, George Alvarez<sup>1</sup>; <sup>1</sup>Harvard University

#### **Bridging visual developmental neuroscience and deep learning: challenges and future directions**

Marieke Mur<sup>1</sup>; <sup>1</sup>Western University

# Symposia

## Object representations in the parietal cortex

*Friday, May 19, 2023, 5:00 - 7:00 pm EDT, Talk Room 1*

Organizers: Erez Freud<sup>1</sup>, Maryam Vaziri Pashkam<sup>2</sup>, Yaoda Xu<sup>3</sup>; <sup>1</sup>York University, <sup>2</sup>National Institute of Mental Health, <sup>3</sup>Yale University

Presenters: Maryam Vaziri-Pashkam, Vladislav Ayzenberg, Anne B. Sereno, Erez Freud, Stefania Bracci, Yaoda Xu

Understanding visual object representation is essential to understanding primate vision. Recent evidence shows that the dorsal visual pathway contains robust object representations. How shall we make sense of such representations? By bringing together six speakers studying object representations from different perspectives and using diverse approaches, this symposium aims to characterize the nature of dorsal object representations and elucidate their functional significance and developmental trajectories. Each speaker will also share their thoughts on what they think are the critical unanswered questions and whether it is possible to form a unified view of the role of the parietal cortex in object processing.

### **Presentations**

#### **Two pathways for processing object shapes**

Maryam Vaziri-Pashkam<sup>1</sup>; <sup>1</sup>Laboratory of Brain and Cognition, National Institute of Mental Health

#### **Dorsal and ventral visual pathways: An expanded neural framework for object recognition**

Vladislav Ayzenberg<sup>1</sup>, Marlene Behrmann<sup>1,2</sup>; <sup>1</sup>Neuroscience Institute and Psychology Department, Carnegie Mellon University, <sup>2</sup>Department of Ophthalmology, University of Pittsburgh

#### **Independence, not interactions: What simulations suggest about ventral and dorsal pathways.**

Anne B. Sereno<sup>1,2</sup>, Zhixian Han<sup>2</sup>; <sup>1</sup>Psychological Sciences Department, Purdue University, <sup>2</sup>Weldon School of Biomedical Engineering, Purdue University

#### **Object representations in the dorsal pathway are subject to a protracted and susceptible developmental trajectory.**

Erez Freud<sup>1</sup>; <sup>1</sup>Department of Psychology and the Centre for Vision Research, York University

#### **The role of behavioral goals in shaping object representations in the two visual pathways.**

Stefania Bracci<sup>1</sup>, Hans Op de Beeck<sup>2</sup>; <sup>1</sup>Center for Mind/Brain Sciences - CIMEC, University of Trento, Rovereto (TN), Italy, <sup>2</sup>KU Leuven, Leuven Brain Institute, Brain & Cognition Research Unit, Leuven, 3000, Belgium.

#### **Adaptive visual object representation in the human posterior parietal cortex**

Yaoda Xu<sup>1</sup>; <sup>1</sup>Psychology Department, Yale University

# Symposia

## Continuous psychophysics

*Friday, May 19, 2023, 5:00 - 7:00 pm EDT, Talk Room 2*

Organizers: Johannes Burge<sup>1</sup>, Kathryn Bonnen<sup>2</sup>; <sup>1</sup>University of Pennsylvania, <sup>2</sup>Indiana University

Presenters: Johannes Burge, Constantin Rothkopf, David Burr, Clara Mestre, Pascal Mamassian

Continuous psychophysics is a recent and potentially paradigm-shifting methodological advance in the science of perception and action. While traditional psychophysics (e.g. forced-choice, two-alternative tasks) usually acquires measurements on the time-scale of seconds, the computations driving perception and action often take place on the time-scale of milliseconds. Continuous psychophysics closes this temporal gap, providing information about temporal dynamics with millisecond-scale precision. This symposium will showcase prominent examples of the topics that can be investigated with this approach: depth and motion perception, temporal integration, perception & action, numerosity, visual development, and confidence/metacognition.

### **Presentations**

#### **Continuous psychophysics: Past, Present, and Future**

Johannes Burge<sup>1</sup>, Kathryn Bonnen<sup>2</sup>; <sup>1</sup>University of Pennsylvania, <sup>2</sup>Indiana University

#### **Putting perception into action: Inverse optimal control for continuous psychophysics**

Constantin Rothkopf<sup>1</sup>, Dominik Straub<sup>1</sup>; <sup>1</sup>Technical University of Darmstadt, Germany

#### **Continuous tracking as a general tool to study the dynamics and context effects of human perception**

David Burr<sup>1</sup>, Pierfrancesco Ambrosi<sup>1</sup>, Guido Marco Cicchini<sup>2</sup>; <sup>1</sup>University of Florence, Florence, Italy, <sup>2</sup>National Research Council, Pisa, Italy

#### **Applications of continuous tracking to typical and atypical visual development**

Clara Mestre<sup>1</sup>, Colin Downey<sup>1</sup>; <sup>1</sup>Indiana University

#### **Visuo-motor confidence**

Pascal Mamassian<sup>1</sup>, Shannon Locke<sup>1</sup>, Alexander Goettker<sup>2</sup>, Karl Gegenfurtner<sup>2</sup>; <sup>1</sup>CNRS & École normale supérieure, Paris, France, <sup>2</sup>Justus-Liebig University Giessen, Giessen, Germany, <sup>3</sup>New York University, New York, NY

# Talk Sessions

## Saturday, May 20

### Time

8:15 am	Face Perception: Disorders, individual differences, and social cognition	Perceptual Organization: Bistability, representation
10:45 am	Materials, Objects and Perception	Eye Movements: Perception, cognition
2:30 pm	Development: Infancy	Artificial neural networks and vision
5:15 pm	Intuitive Physics and Event Perception	Temporal Processing

## Sunday, May 21

### Time

8:15 am	Perceptual Organization: Motion, texture	Multisensory Processing
10:45 am	Plasticity and Learning 1	Perception and Action: Reach, grasp, walk
2:30 pm	Object Recognition: Artificial neural networks, models	Visual Search: Attention, memory
5:15 pm	Attention: Mechanisms and models	Color, Light and Materials: Cones to cognition

## Monday, May 22

### Time

8:15 am	Spatial Vision	Motion: Neural mechanisms, models, perception
10:45 am	Development: Disorders	3D: Disparity and shape

## Tuesday, May 23

### Time

8:15 am	Plasticity and Learning 2	Binocular Vision
10:45 am	Visual Memory: Space, time, features, objects	Object Recognition: Categories, neural mechanisms
2:30 pm	Eye Movements: Neural processes and models	Scene Perception
5:15 pm	Attention: Models, individual differences, reward, capture, shifting	Visual Working Memory

## Wednesday, May 24

### Time

8:15 am	Perceptual Decision-Making and Confidence	Visual Search
10:45 am	Attention: Spatial, featural, temporal, divided	Face Perception: Neural mechanisms and models



# Face Perception: Disorders, individual differences, and social cognition

*Talk Session: Saturday, May 20, 2023, 8:15 – 9:45 am EDT, Talk Room 1*

*Moderator: Brad Duchaine, Dartmouth*

*Talk 1, 8:15 am, 21.11*

## **Strong modulation of face distortions in prosopometamorphopsia by color**

Antônio Mello<sup>1</sup>, Daniel Stehr<sup>1</sup>, Krzysztof Bujarski<sup>1</sup>, Viola Störmer<sup>1</sup>, Brad Duchaine<sup>1</sup>; <sup>1</sup>Dartmouth College

*Talk 2, 8:30 am, 21.12*

## **Tracking the emergence of hyperfamiliarity for faces: Late covert discrimination followed by hyperfamiliarity due to disrupted post-perceptual processes**

Marie-Luise Kieseler<sup>1</sup> ([mlk.gr@dartmouth.edu](mailto:mlk.gr@dartmouth.edu)), Katie Fisher<sup>2</sup>, Rebecca Nako<sup>2</sup>, Kira Noad<sup>3</sup>, David Watson<sup>3</sup>, Timothy Andrews<sup>3</sup>, Martin Eimer<sup>2</sup>, Brad Duchaine<sup>1</sup>; <sup>1</sup>Dartmouth College, <sup>2</sup>Birkbeck College, University of London, <sup>3</sup>University of York

*Talk 3, 8:45 am, 21.13*

## **Weaker face recognition in adults with autism arises from perceptually based alterations**

Marissa Hartston<sup>1</sup> ([ron.marissa@gmail.com](mailto:ron.marissa@gmail.com)), Yoni Pertzov<sup>2</sup>, Galia Avidan<sup>3</sup>, Bat-Sheva Hadad<sup>1</sup>; <sup>1</sup>University of Haifa, <sup>2</sup>The Hebrew University of Jerusalem, <sup>3</sup>Ben-Gurion University of the Negev

*Talk 4, 9:00 am, 21.14*

## **In the face of diversity: Face ethnicity influences the use of face features for social trait perception**

Valentina Gosetti<sup>1</sup>, Laura B. Hensel<sup>1</sup>, Robin A. A. Ince<sup>1</sup>, Oliver G. B. Garrod<sup>1</sup>, Philippe G. Schyns<sup>1</sup>, Rachael E. Jack<sup>1</sup>; <sup>1</sup>University of Glasgow

*Talk 5, 9:15 am, 21.15*

## **The face of mischief: A stereotyped signal of norm violation within a Magic Circle**

Loren Matelsky<sup>1</sup> ([loren@newschool.edu](mailto:loren@newschool.edu)), Hong B. Nguyen<sup>1</sup>, Colleen Macklin<sup>1</sup>, Benjamin van Buren<sup>1</sup>; <sup>1</sup>The New School for Social Research

*Talk 6, 9:30 am, 21.16*

## **The spatiotemporal dynamics of social scene perception in the human brain**

Emalie McMahon<sup>1</sup>, Taylor Abel<sup>2</sup>, Jorge Gonzalez-Martinez<sup>2</sup>, Michael F. Bonner<sup>1</sup>, Avniel Ghuman<sup>2</sup>, Leyla Isik<sup>1</sup>; <sup>1</sup>Johns Hopkins University, <sup>2</sup>University of Pittsburgh

# Perceptual Organization: Bistability, representation

*Talk Session: Saturday, May 20, 2023, 8:15 – 9:45 am EDT, Talk Room 2*

*Moderator: Cathleen Moore, University of Iowa*

*Talk 1, 8:15 am, 21.21*

### **Perceptual Organization is Limited in the Peripheral Vision**

Cathleen Moore<sup>1</sup> ([cathleen-moore@uiowa.edu](mailto:cathleen-moore@uiowa.edu)), Qingzi Zheng<sup>1</sup>, Nicole Jardine; <sup>1</sup>University of Iowa

*Talk 2, 8:30 am, 21.22*

### **Perceptual popout may be linked to de-suppression of orientation-untuned surround suppression in macaque V1**

Xingnan ZHAO<sup>1</sup> ([zhaoxingnan@pku.edu.cn](mailto:zhaoxingnan@pku.edu.cn)), Shenghui ZHANG<sup>1</sup>, Shiming Tang<sup>1,2,4</sup>, Cong Yu<sup>1,3,4</sup>; <sup>1</sup>PKU-Tsinghua Center for Life Sciences, Peking University, <sup>2</sup>School of Life Sciences, <sup>3</sup>School of Psychological and Cognitive Sciences, <sup>4</sup>IDG-McGovern Institute for Brain Research, Peking University

*Talk 3, 8:45 am, 21.23*

### **Neural representation of occluded objects in visual cortex**

Courtney Mansfield<sup>1</sup> ([courtneymansfield@hotmail.co.uk](mailto:courtneymansfield@hotmail.co.uk)), Tim Kietzmann<sup>2</sup>, Jasper van den Bosch<sup>3</sup>, Ian Charest<sup>4</sup>, Marieke Mur<sup>5</sup>, Nikolaus Kriegeskorte<sup>6</sup>, Fraser Smith<sup>1</sup>; <sup>1</sup>University of East Anglia, <sup>2</sup>University of Osnabruck, <sup>3</sup>University of Birmingham, <sup>4</sup>Universite de Montreal, <sup>5</sup>Brain and Mind Institute, Western University, <sup>6</sup>Zuckerman Institute, Columbia University

*Talk 4, 9:00 am, 21.24*

### **Gestalt formation promotes awareness of suppressed visual stimuli during binocular rivalry**

Mar Nikiforova<sup>1</sup> ([mnikiforova@umass.edu](mailto:mnikiforova@umass.edu)), Rosemary Cowell, David Huber; <sup>1</sup>University of Massachusetts, Amherst

*Talk 5, 9:15 am, 21.25*

### **How many perceptual categories do observers experience during visual multistability?**

Jan Skerswetat<sup>1</sup> ([j.skerswetat@northeastern.edu](mailto:j.skerswetat@northeastern.edu)), Peter J. Bex<sup>1</sup>; <sup>1</sup>Northeastern University, USA

*Talk 6, 9:30 am, 21.26*

### **Increasing Interocular Grouping Demands during Binocular Rivalry with MEG**

Eric Mokri<sup>1</sup> ([eric.mokri@mail.mcgill.ca](mailto:eric.mokri@mail.mcgill.ca)), Jason da Silva Castanheria<sup>1</sup>, Janine D. Mendola<sup>1</sup>; <sup>1</sup>McGill University

## **Materials, Objects and Perception**

*Talk Session: Saturday, May 20, 2023, 10:45 am – 12:30 pm EDT, Talk Room 1*

*Moderator: Bei Xiao, American University*

*Talk 1, 10:45 am, 22.11*

### **Behaviourally relevant image structure linked with visual sampling and perception of materials**

Alexandra C. Schmid<sup>1</sup>, Matthias Nau<sup>1</sup>, Chris I. Baker<sup>1</sup>; <sup>1</sup>National Institutes of Health

*Talk 2, 11:00 am, 22.12*

## **Shared Representation of Different Material Categories: Transfer Learning of Crystals From Soaps**

Chenxi Liao<sup>1</sup>, Masataka Sawayama<sup>2</sup>, Bei Xiao<sup>1</sup>; <sup>1</sup>American University, <sup>2</sup>The University of Tokyo

*Talk 3, 11:15 am, 22.13*

## **Material perception diagnosticity of visual product interaction.**

Aaron Kaltenmaier<sup>1,2</sup>, Maarten Wijntjes<sup>1</sup>; <sup>1</sup>Technical University Delft, <sup>2</sup>University College London

*Talk 4, 11:30 am, 22.14*

## **Measuring Object Recognition Ability: Reliability, Validity, and the Aggregate z-score Approach.**

Conor J. R. Smithson<sup>1</sup> ([conor.smithson@vanderbilt.edu](mailto:conor.smithson@vanderbilt.edu)), Jason K. Chow<sup>1</sup>, Ting-Yun Chang<sup>1</sup>, Isabel Gauthier<sup>1</sup>; <sup>1</sup>Vanderbilt University

*Talk 5, 11:45 am, 22.15*

## **The Beholder's Share: Cross-subject Variability in Responses to Abstract Art**

Celia Durkin<sup>1,4</sup> ([ced2166@columbia.edu](mailto:ced2166@columbia.edu)), Benjamin Peters<sup>1,4</sup>, Christopher Baldassano<sup>1</sup>, Eric Kandel<sup>2,3,4</sup>, Daphna Shohamy<sup>1,2,3,4</sup>; <sup>1</sup>Columbia University Psychology Department, <sup>2</sup>Howard Hughes Medical Institute, <sup>3</sup>Kavli Institute for Brain Science, <sup>4</sup>Zuckerman Mind, Brain Behavior Institute

*Talk 6, 12:00 pm, 22.16*

## **A solution to the ill-posed problem of common factors in vision**

Dario Gordillo<sup>1</sup>, Aline Cretenoud<sup>1</sup>, Simona Garobbio<sup>1</sup>, Michael H. Herzog<sup>1</sup>; <sup>1</sup>Laboratory of Psychophysics, Brain Mind Institute, School of Life Sciences, École Polytechnique Fédérale de Lausanne (EPFL), Lausanne, Switzerland

*Talk 7, 12:15 pm, 22.17*

## **Toward a computational neuroscience of visual cortex without deep learning**

Atlas Kazemian<sup>1</sup>, Eric Elmoznino<sup>1</sup>, Michael Bonner<sup>1</sup>; <sup>1</sup>Johns Hopkins University

# **Eye Movements: Perception, cognition**

*Talk Session: Saturday, May 20, 2023, 10:45 am – 12:30 pm EDT, Talk Room 2*

*Moderator: Jorge Otero-Millan, UC Berkeley*

*Talk 1, 10:45 am, 22.21*

## **Motion signals at the target of saccadic eye movements modulate presaccadic foveal perception and drive predictive gaze responses**

Lisa M. Kroell<sup>1,2</sup> ([lisa.maria.kroell@hu-berlin.de](mailto:lisa.maria.kroell@hu-berlin.de)), Jude F. Mitchell<sup>3</sup>, Martin Rolfs<sup>1,2</sup>; <sup>1</sup>Humboldt-University of Berlin, <sup>2</sup>Berlin School of Mind and Brain, <sup>3</sup>University of Rochester

*Talk 2, 11:00 am, 22.22*

## **Cortical spatiotemporal reformatting tuned to saccadic amplitude**

Alessandro Benedetto<sup>1,2</sup> ([aml.benedetto@gmail.com](mailto:aml.benedetto@gmail.com)), Michele A. Cox<sup>1,2</sup>, Samantha K. Jenks<sup>1,2</sup>, Jonathan D. Victor<sup>3</sup>, Michele Rucci<sup>1,2</sup>; <sup>1</sup>Department of Brain and Cognitive Sciences, University of Rochester, NY, USA, <sup>2</sup>Center for Visual Science, University of Rochester, NY, USA, <sup>3</sup>Feil Family Brain and Mind Research Institute, Weill Cornell Medical College, NY, USA

*Talk 3, 11:15 am, 22.23*

### **Visual stability and motor updating in autistic symptomatology.**

Antonella Pomè<sup>1</sup>, Eckart Zimmermann<sup>2</sup>; <sup>1</sup>Heinrich Heine University Düsseldorf

*Talk 4, 11:30 am, 22.24*

### **Thinks are looking up: The extrafoveal preview effect is the largest at the upper vertical meridian, where peripheral sensitivity is worst**

Xiaoyi Liu<sup>1</sup> ([xl4251@nyu.edu](mailto:xl4251@nyu.edu)), David Melcher<sup>1</sup>, Marisa Carrasco<sup>2</sup>, Nina Hanning<sup>2,3</sup>; <sup>1</sup>New York University Abu Dhabi, <sup>2</sup>New York University, <sup>3</sup>Humboldt-Universität zu Berlin

*Talk 5, 11:45 am, 22.25*

### **Motion blur near the resolution limit of the parafoveal retina**

Alisa Braun<sup>1</sup> ([alisa\\_braun@berkeley.edu](mailto:alisa_braun@berkeley.edu)), Isabel L Groth<sup>1</sup>, Jorge Otero-Millan<sup>1</sup>, William S Tuten<sup>1</sup>; <sup>1</sup>UC Berkeley

*Talk 6, 12:00 pm, 22.26*

### **Modeling internal state changes in free-viewing and visual search scanpaths with gain control in DeepGaze III**

Matthias Kümmerer<sup>1</sup> ([matthias.kuemmerer@bethgelab.org](mailto:matthias.kuemmerer@bethgelab.org)), Matthias Bethge<sup>1</sup>; <sup>1</sup>University of Tübingen, Tuebingen AI Center

*Talk 7, 12:15 pm, 22.27*

### **VR training produces more expert-like gaze behaviour in tennis players on-court**

David Mann<sup>1</sup> ([d.mann@vu.nl](mailto:d.mann@vu.nl)), Laure Soepenbergh<sup>1</sup>, Joost Bosschert<sup>2</sup>, Han Hakkens<sup>2</sup>, Aldo Hoekstra<sup>3</sup>; <sup>1</sup>Vrije Universiteit Amsterdam, <sup>2</sup>SportsImprov, <sup>3</sup>Royal Dutch Lawn Tennis Association (KNLTB)

## **Development: Infancy**

*Talk Session: Saturday, May 20, 2023, 2:30 – 4:15 pm EDT, Talk Room 1*

*Moderator: Lisa Oakes, UC Davis*

*Talk 1, 2:30 pm, 24.11*

### **Visual experience drives the development of novel and reliable visual representations from endogenously structured networks**

Sigrid Trägenap<sup>1</sup> ([traegenap@fias.uni-frankfurt.de](mailto:traegenap@fias.uni-frankfurt.de)), David E. Whitney<sup>2</sup>, David Fitzpatrick<sup>2</sup>, Matthias Kaschube<sup>1,3</sup>; <sup>1</sup>Frankfurt Institute for Advanced Studies, <sup>2</sup>Department of Functional Architecture and Development of Cerebral Cortex, Max Planck Florida Institute for Neuroscience, Jupiter, Florida, USA, <sup>3</sup>Goethe University Frankfurt, Department of Computer Science, Germany

*Talk 2, 2:45 pm, 24.12*

## Slow change: An analysis of infant egocentric visual experience

Saber Sheybani<sup>1</sup> ([sheybani@iu.edu](mailto:sheybani@iu.edu)), Zoran Tiganj<sup>1</sup>, Justin N. Wood<sup>1</sup>, Linda B. Smith<sup>1</sup>; <sup>1</sup>Indiana University Bloomington

*Talk 3, 3:00 pm, 24.13*

## Influences of the home visual environment on infant attention: insights from remote webcam eye tracking

Denise M Werchan<sup>1</sup> ([denise.werchan@nyulangone.org](mailto:denise.werchan@nyulangone.org)), Moriah E Thomason<sup>1</sup>, Natalie H Brito<sup>2</sup>; <sup>1</sup>NYU Langone Health, <sup>2</sup>New York University

*Talk 4, 3:15 pm, 24.14*

## The statistics of infants' natural visual experience are shaped by motor development.

Zachary Petroff<sup>1</sup> ([zpetroff@iu.edu](mailto:zpetroff@iu.edu)), T. Rowan Candy<sup>1</sup>, Kathryn Bonnen<sup>1</sup>; <sup>1</sup>Indiana University

*Talk 5, 3:30 pm, 24.15*

## Evaluation of Graph-Based Visual Saliency model using infant fixation data

Brianna K. Hunter<sup>1</sup> ([bkhunter@ucdavis.edu](mailto:bkhunter@ucdavis.edu)), Shannon Klotz<sup>1</sup>, Michaela DeBolt<sup>1</sup>, Steven Luck<sup>1</sup>, Lisa Oakes<sup>1</sup>; <sup>1</sup>University of California, Davis

*Talk 6, 3:45 pm, 24.16*

## Infants are sensitive to the Edge Orientation Entropy of Natural Scenes

Philip McAdams<sup>1</sup>, Sara Svobodova<sup>1</sup>, Taysa-Ja Newman<sup>1</sup>, Kezia Terry<sup>1</sup>, Alice Skelton<sup>1</sup>, Anna Franklin<sup>1</sup>; <sup>1</sup>Sussex Colour Group & Baby Lab, School of Psychology, University of Sussex, UK

*Talk 7, 4:00 pm, 24.17*

## What happens to change-detection if you take away the task? Assessing adult and infant fixation preferences while passively viewing change-detection arrays

Shannon Ross-Sheehy<sup>1</sup> ([rosssheehy@utk.edu](mailto:rosssheehy@utk.edu)), Victoria Jones<sup>1</sup>, Esther Reynolds<sup>1</sup>; <sup>1</sup>University of Tennessee

# Artificial neural networks and vision

*Talk Session: Saturday, May 20, 2023, 2:30 – 4:15 pm EDT, Talk Room 2*

*Moderator: Frank Tong, Vanderbilt University*

*Talk 1, 2:30 pm, 24.21*

## Harmonizing the visual strategies of image-computable models with humans yields more performant and interpretable models of primate visual system function.

Ivan Felipe Rodriguez<sup>1</sup> ([ivan\\_felipe\\_rodriguez@brown.edu](mailto:ivan_felipe_rodriguez@brown.edu)), Drew Linsley<sup>1,4</sup>, Jay Gopal<sup>1</sup>, Thomas Fel<sup>1,2</sup>, Michael J. Acaro<sup>3</sup>, Saloni Sharma<sup>3</sup>, Margaret Livingstone<sup>3</sup>, Thomas Serre<sup>1,4</sup>; <sup>1</sup>Brown University, <sup>2</sup>Artificial and Natural Intelligence Toulouse Institute, <sup>3</sup>Harvard University, <sup>4</sup>Carney institue for Brain Science

*Talk 2, 2:45 pm, 24.22*

## Canonical Dimensions of Neural Visual Representation

Zirui Chen<sup>1</sup> ([zchen160@jhu.edu](mailto:zchen160@jhu.edu)), Michael Bonner<sup>1</sup>; <sup>1</sup>Johns Hopkins University

*Talk 3, 3:00 pm, 24.23*

### **Net2Brain: A Toolbox to compare artificial vision models with human brain responses**

Domenic Bersch<sup>1</sup>, Kshitij Dwivedi<sup>1</sup>, Martina Vilas<sup>1,2</sup>, Radoslaw Martin Cichy<sup>3,4,5</sup>, Gemma Roig<sup>1</sup>; <sup>1</sup>Johann Wolfgang Goethe-Universität Frankfurt, <sup>2</sup>Ernst Struengmann Institute for Neuroscience, <sup>3</sup>Department of Education and Psychology, Freie Universität Berlin, <sup>4</sup>Berlin School of Mind and Brain, Faculty of Philosophy, <sup>5</sup>Bernstein Center for Computational Neuroscience Berlin

*Talk 4, 3:15 pm, 24.24*

### **Unsupervised contrastive learning and supervised classification training have opposite effects on the human-likeness of CNNs during occluded object processing**

David Coggan<sup>1</sup> ([ddcoggan@gmail.com](mailto:ddcoggan@gmail.com)), Frank Tong<sup>1</sup>; <sup>1</sup>Vanderbilt University

*Talk 5, 3:30 pm, 24.25*

### **Deep learning classifiers match human accuracies but not the quirks**

Joseph MacInnes<sup>1</sup>, Natalia Zhzhikhovskaya, Kirill Koretaev<sup>2</sup>, Feurra Matteo<sup>3</sup>; <sup>1</sup>Swansea University, <sup>2</sup>Purple Gaze, <sup>3</sup>HSE University

*Talk 6, 3:45 pm, 24.26*

### **Noise reduction as a unified mechanism of perceptual learning in both artificial and biological visual systems**

Yu-Ang Cheng<sup>1,2</sup> ([yuang\\_cheng@brown.edu](mailto:yuang_cheng@brown.edu)), Ke Jia<sup>8,9,10</sup>, Takeo Watanabe<sup>2</sup>, Sheng Li<sup>4,5,6,7</sup>, Ru-Yuan Zhang<sup>1,3</sup>; <sup>1</sup>Institute of Psychology and Behavioral Science, Antai College of Economics and Behavioral Sciences, Shanghai Jiao Tong University, Shanghai, China, <sup>2</sup>Brown University, Department of Cognitive, Linguistic and Psychological Sciences, RI, USA, <sup>3</sup>Shanghai Mental Health Center, School of Medicine, Shanghai Jiao Tong University, Shanghai, China, <sup>4</sup>School of Psychological and Cognitive Sciences, Peking University, Beijing, China, <sup>5</sup>Beijing Key Laboratory of Behavior and Mental Health, Peking University, Beijing, China, <sup>6</sup>PKU-IDG/McGovern Institute for Brain Research, Peking University, Beijing, China, <sup>7</sup>Key Laboratory of Machine Perception (Ministry of Education), Peking University, Beijing, China, <sup>8</sup>Department of Neurobiology, Affiliated Mental Health Center & Hangzhou Seventh People, <sup>9</sup>Liangzhu Laboratory, MOE Frontier Science Center for Brain Science and Brain-machine Integration, State Key Laboratory of Brain-machine Intelligence, Zhejiang University, Hangzhou, China, <sup>10</sup>NHC and CAMS Key Laboratory of Medical Neurobiology, Zhejiang University, Hangzhou, China

*Talk 7, 4:00 pm, 24.27*

### **Comparing motion and static feature selectivity between the macaque dorsal and ventral temporal visual cortical body patches**

Rajani Raman<sup>1,2</sup> ([rajani.raman@kuleuven.be](mailto:rajani.raman@kuleuven.be)), Anna Bognár<sup>1,2</sup>, Ghazaleh Ghamkhari Nejad<sup>1,2</sup>, Nick Taubert<sup>3</sup>, Beatrice de Gelder<sup>4,5</sup>, Martin A Giese<sup>3</sup>, Rufin Vogels<sup>1,2</sup>; <sup>1</sup>Department of Neuroscience, KU Leuven, Leuven, Belgium, <sup>2</sup>Leuven Brain Institute, KU Leuven, Leuven, Belgium, <sup>3</sup>HIH&CIN, Department of Cognitive Neurology, University Clinic Tübingen, Tübingen, Germany, <sup>4</sup>Faculty of Psychology and Neuroscience, Maastricht University, Maastricht, Netherlands, <sup>5</sup>Department of Computer Science, University College London, London, United Kingdom

# Intuitive Physics and Event Perception

*Talk Session: Saturday, May 20, 2023, 5:15 – 6:45 pm EDT, Talk Room 1*

*Moderator: Jason Fischer, Johns Hopkins University*

*Talk 1, 5:15 pm, 25.11*

## **The role of agentive and physical forces in the neural representation of motion events**

Seda Akbiyik<sup>1</sup> ([sakbiyik@fas.harvard.edu](mailto:sakbiyik@fas.harvard.edu)), Oliver Sussman<sup>1</sup>, Moritz Wurm<sup>2</sup>, Alfonso Caramazza<sup>1,2</sup>; <sup>1</sup>Harvard University, <sup>2</sup>Centre for Mind/Brain Sciences University of Trento

*Talk 2, 5:30 pm, 25.12*

## **Decoding the physics of actions in the dorsal visual pathway**

Moritz Wurm<sup>1</sup> ([moritz.wurm@unitn.it](mailto:moritz.wurm@unitn.it)), Yiğit Erigüç<sup>1</sup>; <sup>1</sup>University of Trento

*Talk 3, 5:45 pm, 25.13*

## **What does learning look like? Inferring epistemic intent from observed actions**

Sholei Croom<sup>1</sup> ([scroom1@jhu.edu](mailto:scroom1@jhu.edu)), Hanbei Zhou<sup>1</sup>, Chaz Firestone<sup>1</sup>; <sup>1</sup>Johns Hopkins University

*Talk 4, 6:00 pm, 25.14*

## **That's just how I roll!: Predicting and remembering objects' locations via the perception of frictive surface contact**

Hong B. Nguyen<sup>1</sup> ([nguyh376@newschool.edu](mailto:nguyh376@newschool.edu)), Benjamin van Buren<sup>1</sup>; <sup>1</sup>The New School

*Talk 5, 6:15 pm, 25.15*

## **Using fMRI to study the neural basis of violation-of-expectation**

Shari Liu<sup>1,2</sup> ([shariliu@jhu.edu](mailto:shariliu@jhu.edu)), Kirsten Lydic<sup>2</sup>, Rebecca Saxe<sup>2</sup>; <sup>1</sup>Johns Hopkins University, <sup>2</sup>Massachusetts Institute of Technology

*Talk 6, 6:30 pm, 25.16*

## **"Things" versus "Stuff" in the Brain**

Vivian C. Paulun<sup>1</sup> ([vpaulun@mit.edu](mailto:vpaulun@mit.edu)), RT Pramod<sup>1</sup>, Nancy Kanwisher<sup>1</sup>; <sup>1</sup>Massachusetts Institute of Technology

# Temporal Processing

*Talk Session: Saturday, May 20, 2023, 5:15 – 6:45 pm EDT, Talk Room 2*

*Moderator: Pascal Mamassian, Ecole Normale Supérieure and CNRS*

*Talk 1, 5:15 pm, 25.21*

## **Event-based warping: An illusory distortion of time within events**

Rui Zhe Goh<sup>1</sup> ([rgoh1@jhu.edu](mailto:rgoh1@jhu.edu)), Hanbei Zhou<sup>1</sup>, Chaz Firestone<sup>1</sup>, Ian Phillips<sup>1</sup>; <sup>1</sup>Johns Hopkins University

*Talk 2, 5:30 pm, 25.22*

## **Interocular binding of chromatic signals across time**

Benjamin M Chin<sup>1</sup> ([bechin@sas.upenn.edu](mailto:bechin@sas.upenn.edu)), Johannes Burge<sup>1</sup>; <sup>1</sup>University of Pennsylvania

*Talk 3, 5:45 pm, 25.23*

## **The temporal sensitivity of visual cortex reflects an eccentricity-dependent variation in surround inhibition**

Carlyn Patterson Gentile<sup>1,2</sup> ([pattersonc@chop.edu](mailto:pattersonc@chop.edu)), Manuel Spitschan<sup>3,4</sup>, Huseyin Taskin<sup>1</sup>, Andrew Bock<sup>1</sup>, Geoffrey Aguirre<sup>1</sup>; <sup>1</sup>University of Pennsylvania Perelman School of Medicine, Philadelphia, PA, <sup>2</sup>Children's Hospital of Philadelphia, Philadelphia, PA, <sup>3</sup>Translational Sensory & Circadian Neuroscience, Max Planck Institute for Biological Cybernetics, Tübingen, Germany, <sup>4</sup>Chronobiology & Health, TUM Department of Sport and Health Sciences (TUM SG), Technical University of Munich, Munich, Germany

*Talk 4, 6:00 pm, 25.24*

## **Alpha power modulates long-lasting feature integration**

Maëlan Q. Menétray<sup>1</sup> ([maelan.menetrey@epfl.ch](mailto:maelan.menetrey@epfl.ch)), Michael H. Herzog<sup>1</sup>, David Pascucci<sup>1</sup>; <sup>1</sup>Laboratory of Psychophysics, École Polytechnique Fédérale de Lausanne (EPFL)

*Talk 5, 6:15 pm, 25.25*

## **Serial Dependence Biases Realistic Skin Cancer Diagnosis**

Zhihang Ren<sup>1</sup> ([peter.zhren@berkeley.edu](mailto:peter.zhren@berkeley.edu)), Xinyu Li<sup>1</sup>, Dana Pietralla<sup>2</sup>, Mauro Manassi<sup>3</sup>, Stella Yu<sup>1,4</sup>, David Whitney<sup>1</sup>; <sup>1</sup>University of California, Berkeley, <sup>2</sup>University of Cologne, <sup>3</sup>University of Aberdeen, <sup>4</sup>University of Michigan, Ann Arbor

*Talk 6, 6:30 pm, 25.26*

## **Overestimated speed at short durations creates a novel motion-position dissociation**

Pascal Mamassian<sup>1</sup> ([pascal.mamassian@ens.fr](mailto:pascal.mamassian@ens.fr)); <sup>1</sup>Ecole Normale Supérieure and CNRS

# **Perceptual Organization: Motion, texture**

*Talk Session: Sunday, May 21, 2023, 8:15 – 9:45 am EDT, Talk Room 1*

*Moderator: Michael Morgan, City, University of London*

*Talk 1, 8:15 am, 31.11*

## **Extent of the "fading mirror" phenomenon as a function of image statistics of the ground texture for mirror placement**

Kazushi Maruya<sup>1</sup> ([kazushi.maruya.zb@hco.ntt.co.jp](mailto:kazushi.maruya.zb@hco.ntt.co.jp)), Tomoko Ohtani<sup>2</sup>; <sup>1</sup>NTT Communication Science Laboratories, <sup>2</sup>Meiji University

*Talk 2, 8:30 am, 31.12*

## **Spatial Mechanisms Mediating Visual Responses to Symmetries in Textures**

Yara Iskandar<sup>1</sup> ([misk22@my.yorku.ca](mailto:misk22@my.yorku.ca)), Christopher Lee<sup>1,3</sup>, Sebastian Bosse<sup>2</sup>, Peter J Kohler<sup>1</sup>; <sup>1</sup>York University, Toronto, ON, Canada, <sup>2</sup>Fraunhofer HHI, Germany, <sup>3</sup>Image Engine Design Inc., Vancouver, BC, Canada

*Talk 3, 8:45 am, 31.13*

## **A replication and reanalysis of a classic texture segmentation study**

Maria Kon<sup>1</sup> ([mkon@purdue.edu](mailto:mkon@purdue.edu)), Gregory Francis<sup>1</sup>; <sup>1</sup>Purdue University



*Talk 4, 9:00 am, 31.14*

### **Distinct rules for binding in position-based and velocity-based motion systems**

Ilker Duymaz<sup>1</sup> ([duymaz@sabanciuniv.edu](mailto:duymaz@sabanciuniv.edu)), Nihan Alp<sup>1</sup>; <sup>1</sup>Sabanci University, Istanbul, Turkey

*Talk 5, 9:15 am, 31.15*

### **Neural correlates of perceptual motion integration and segmentation of locally paired and unpaired random-dot stimuli.**

Bikalpa Ghimire<sup>1</sup> ([bghimire2@wisc.edu](mailto:bghimire2@wisc.edu)), Xin Huang<sup>1</sup>; <sup>1</sup>University of Wisconsin- Madison

*Talk 6, 9:30 am, 31.16*

### **Object solidity disambiguates ambiguous motion**

Dawei Bai<sup>1</sup> ([dawei.bai@ens.fr](mailto:dawei.bai@ens.fr)), Brent Strickland<sup>1,2</sup>; <sup>1</sup>École Normale Supérieure, PSL Research University, Institut Jean Nicod (ENS, EHESS, CNRS), Paris, France, <sup>2</sup>Africa Business School; School of Collective Intelligence - UM6P - Rabat, Morocco

## **Multisensory Processing**

*Talk Session: Sunday, May 21, 2023, 8:15 – 9:45 am EDT, Talk Room 2*

*Moderator: Patrizia Fattori, University of Bologna*

*Talk 1, 8:15 am, 31.21*

### **Visual cortical regions carry information about auditory attention**

Abigail Noyce<sup>1</sup>, Weizhe Guo<sup>1</sup>, Wenkang An<sup>2</sup>, Barbara Shinn-Cunningham<sup>1</sup>; <sup>1</sup>Carnegie Mellon University, <sup>2</sup>Boston Children's Hospital

*Talk 2, 8:30 am, 31.22*

### **Visual vs. Auditory Landmark for Vestibular Self-motion Perception**

Silvia Zanchi<sup>1,2,3,5</sup> ([silvia.zanchi@iit.it](mailto:silvia.zanchi@iit.it)), Luigi Felice Cuturi<sup>1,4</sup>, Giulio Sandini<sup>3</sup>, Monica Gori<sup>1</sup>, Elisa Raffaella Ferrè<sup>5</sup>; <sup>1</sup>Unit of Visually Impaired People, Italian Institute of Technology, Genoa, Italy, <sup>2</sup>DIBRIS Department, University of Genoa, Italy, <sup>3</sup>Robotics Brain and Cognitive Sciences, Italian Institute of Technology, Genoa, Italy, <sup>4</sup>Department of Cognitive, Psychological, Pedagogical Sciences and of Cultural Studies, University of Messina, Messina, Italy, <sup>5</sup>Department of Psychological Sciences, Birkbeck, University of London, London, UK

*Talk 3, 8:45 am, 31.23*

### **Effect of subjective visual awareness on multisensory integration: evidence from behavioural data and computational modelling**

Sanni Ahonen<sup>1</sup> ([s.ahonen.21@abdn.ac.uk](mailto:s.ahonen.21@abdn.ac.uk)), Thomas Otto<sup>2</sup>, Arash Sahraie<sup>1</sup>; <sup>1</sup>University of Aberdeen, <sup>2</sup>University of St Andrews

*Talk 4, 9:00 am, 31.24*

### **Interactions of body representations in rubber hand illusion and tool-use paradigms**

Inci Ayhan<sup>1</sup> ([inci.ayhan@boun.edu.tr](mailto:inci.ayhan@boun.edu.tr)), Alp Er Kent<sup>1</sup>, Emre Ugur<sup>1</sup>, Erhan Oztop<sup>2,3</sup>; <sup>1</sup>Bogazici University, Istanbul, Turkey, <sup>2</sup>Ozyegin University, Istanbul, Turkey, <sup>3</sup>Osaka University, Japan

*Talk 5, 9:15 am, 31.25*

## **Sensorimotor reorganization in visual cortex in brain-damaged individuals with primary somatosensory damage**

Jared Medina<sup>1</sup>, Yuqi Liu<sup>1,2</sup>, Elizabeth J. Halfen<sup>3</sup>, Jeffrey M. Yau<sup>3</sup>, Simon Fischer-Baum<sup>4</sup>, Peter Kohler<sup>5</sup>, Olufunsho Faseyitan<sup>6</sup>, H. Branch Coslett<sup>6</sup>; <sup>1</sup>University of Delaware, <sup>2</sup>Chinese Academy of Neuroscience, <sup>3</sup>Baylor College of Medicine, <sup>4</sup>Rice University, <sup>5</sup>York University, <sup>6</sup>University of Pennsylvania

*Talk 6, 9:30 am, 31.26*

## **Narrative, not low-level vision, synchronises audiences during television viewing**

Hugo Hammond<sup>1</sup> ([hugo.hammond@bristol.ac.uk](mailto:hugo.hammond@bristol.ac.uk)), Michael Armstrong<sup>2</sup>, Graham Thomas<sup>2</sup>, Edwin Dalmaijer<sup>1</sup>, Iain Gilchrist<sup>1</sup>; <sup>1</sup>University of Bristol, <sup>2</sup>BBC Research and Development, UK

# **Plasticity and Learning 1**

*Talk Session: Sunday, May 21, 2023, 10:45 am – 12:30 pm EDT, Talk Room 1*

*Moderator: Kristina Visscher, UAB, University of Alabama, Birmingham*

*Talk 1, 10:45 am, 32.11*

## **The effect of consolidation and explicitness on learning and transferring higher-level structural knowledge in vision**

Dominik Garber<sup>1,2</sup> ([garber\\_dominik@phd.ceu.edu](mailto:garber_dominik@phd.ceu.edu)), Jozsef Fiser<sup>1,2</sup>; <sup>1</sup>Department of Cognitive Science, Central European University, <sup>2</sup>Center for Cognitive Computation, Central European University

*Talk 2, 11:00 am, 32.12*

## **Neuromodulatory functions (reward and arousal) induce separate effects on visual perceptual learning (VPL) of a salient but goal-irrelevant visual feature**

Zhiyan Wang<sup>1</sup> ([zhiyan.wang@psychologie.uni-regensburg.de](mailto:zhiyan.wang@psychologie.uni-regensburg.de)), Mark Greenlee<sup>1</sup>; <sup>1</sup>University of Regensburg, Germany

*Talk 3, 11:15 am, 32.13*

## **Plasticity in early visual cortex is modulated by feature salience in task-irrelevant visual perceptual learning**

Markus Becker<sup>1</sup> ([markus.becker@ur.de](mailto:markus.becker@ur.de)), Jennifer Lubich<sup>1</sup>, Sebastian Frank<sup>1</sup>; <sup>1</sup>University of Regensburg

*Talk 4, 11:30 am, 32.14*

## **Pupillometric signature of implicit learning**

Paola Binda<sup>1</sup> ([paola1binda@gmail.com](mailto:paola1binda@gmail.com)), Chiara Terzo<sup>2</sup>, Marco Turi<sup>3,4</sup>, David C. Burr<sup>2</sup>; <sup>1</sup>University of Pisa, <sup>2</sup>University of Florence, <sup>3</sup>University of Salento, <sup>4</sup>Fondazione Stella Maris Mediterraneo

*Talk 5, 11:45 am, 32.15*

## **How does attentional capture with statistical learning accelerate perception?**

Abbey Nydam<sup>1</sup> ([a.s.nydam@gmail.com](mailto:a.s.nydam@gmail.com)), Jay Pratt<sup>1</sup>; <sup>1</sup>University of Toronto

*Talk 6, 12:00 pm, 32.16*

## **Inner retinal integrity correlates with preservation of fine direction discrimination in the blind-field early after V1 damage**

Bryan Redmond<sup>1,2</sup> ([bryan\\_redmond@urmc.rochester.edu](mailto:bryan_redmond@urmc.rochester.edu)), Matthew Cavanaugh<sup>2</sup>, Berkeley Fahrenthold<sup>2</sup>, Jingyi Yang<sup>1,2</sup>, Krystel Huxlin<sup>2</sup>; <sup>1</sup>University of Rochester School of Medicine & Dentistry, <sup>2</sup>Flaum Eye Institute

*Talk 7, 12:15 pm, 32.17*

## **Competitive neurocognitive networks underlying visual statistical learning**

Dezso Nemeth<sup>1</sup> ([dezso.nemeth@inserm.fr](mailto:dezso.nemeth@inserm.fr)), Teodora Vékony<sup>1</sup>; <sup>1</sup>INSERM, CRNL, Lyon, France

# **Perception and Action: Reach, grasp, walk**

*Talk Session: Sunday, May 21, 2023, 10:45 am – 12:30 pm EDT, Talk Room 2*

*Moderator: William Warren, Brown University*

*Talk 1, 10:45 am, 32.21*

## **Decoding Features of Real-world Navigation from the Human Hippocampus**

Kathryn N. Graves<sup>1</sup> ([kathryn.graves@yale.edu](mailto:kathryn.graves@yale.edu)), Ariadne Letrou<sup>1</sup>, Tyler E. Gray<sup>2</sup>, Imran H. Quraishi<sup>2</sup>, Nicholas B. Turk-Browne<sup>1,3</sup>; <sup>1</sup>Department of Psychology, Yale University, <sup>2</sup>Department of Neurology, Yale University, <sup>3</sup>Wu Tsai Institute, Yale University

*Talk 2, 11:00 am, 32.22*

## **Dynamic collision envelope in virtual reality walking with colliding pedestrians**

Jae-Hyun Jung<sup>1</sup> ([jaehyun\\_jung@meei.harvard.edu](mailto:jaehyun_jung@meei.harvard.edu)), Alex Hwang<sup>2</sup>, Jonathan Doyon<sup>3</sup>, Sujin Kim<sup>4</sup>; <sup>1</sup>Department of Ophthalmology, Harvard Medical School, <sup>2</sup>Schepens Eye Research Institute of Massachusetts Eye and Ear

*Talk 3, 11:15 am, 32.23*

## **Motion Energy Modulates Feature Tracking in Human Locomotor Control**

Zhenyu Zhu<sup>1</sup> ([zhenyu\\_zhu@brown.edu](mailto:zhenyu_zhu@brown.edu)), William H. Warren<sup>1</sup>; <sup>1</sup>Brown University

*Talk 4, 11:30 am, 32.24*

## **Visual detection while walking: Sensitivity modulates over the gait cycle**

Cameron Phan<sup>1</sup> ([cpha4652@uni.sydney.edu.au](mailto:cpha4652@uni.sydney.edu.au)), David Alais<sup>1</sup>, Frans Verstraten<sup>1</sup>, Matthew Davidson<sup>1</sup>; <sup>1</sup>University of Sydney

*Talk 5, 11:45 am, 32.25*

## **MEG signatures of arm posture coding and integration into movement plans**

Gunnar Blohm<sup>1</sup> ([gunnar.blohm@queensu.ca](mailto:gunnar.blohm@queensu.ca)), Doug Cheyne<sup>2</sup>, Doug Crawford<sup>3</sup>; <sup>1</sup>Queen's University, Centre for Neuroscience Studies, VISTA, CAPnet, <sup>2</sup>University of Toronto, The Hospital for Sick Children Research Institute, <sup>3</sup>York University, Centre for Vision Research, VISTA, CAPnet

*Talk 6, 12:00 pm, 32.26*

## **Sensorimotor adaptation reveals systematic biases of 3D estimates for reach-to-grasp actions.**

Chaeun Lim<sup>1</sup> ([chaeun\\_lim@brown.edu](mailto:chaeun_lim@brown.edu)), Fulvio Domini<sup>1</sup>; <sup>1</sup>Brown University

*Talk 7, 12:15 pm, 32.27*

### **Human see, human do: comparing visual and motor representations of hand gestures**

Hunter Schone<sup>1,2</sup> ([hunter.schone@nih.gov](mailto:hunter.schone@nih.gov)), Tamar Makin<sup>2,3</sup>, Chris Baker<sup>1</sup>; <sup>1</sup>Laboratory of Brain & Cognition, National Institute of Mental Health, National Institutes of Health, <sup>2</sup>Institute of Cognitive Neuroscience, University College London, <sup>3</sup>MRC Cognition and Brain Sciences Unit, University of Cambridge

## **Object Recognition: Artificial neural networks, models**

*Talk Session: Sunday, May 21, 2023, 2:30 – 4:15 pm EDT, Talk Room 1*

*Moderator: Marieke Mur, Western University*

*Talk 1, 2:30 pm, 34.11*

### **A large and rich EEG dataset for modeling human visual object recognition**

Alessandro T. Gifford<sup>1</sup> ([alessandro.gifford@gmail.com](mailto:alessandro.gifford@gmail.com)), Kshitij Dwivedi<sup>2</sup>, Gemma Roig<sup>2</sup>, Radoslaw M. Cichy<sup>1</sup>; <sup>1</sup>Freie Universität Berlin, <sup>2</sup>Goethe Universität Frankfurt am Main

*Talk 2, 2:45 pm, 34.12*

### **Torchlens: A Python package for extracting and visualizing all hidden layer activations from arbitrary PyTorch models with minimal code**

JohnMark Taylor<sup>1</sup> ([johnmarkedwardtaylor@gmail.com](mailto:johnmarkedwardtaylor@gmail.com)), Nikolaus Kriegeskorte<sup>1</sup>; <sup>1</sup>Columbia University

*Talk 3, 3:00 pm, 34.13*

### **Invariant object recognition in deep neural networks: impact of visual diet and learning goals**

Haider Al-Tahan<sup>1,2</sup>, Farzad Shayanfar, Ehsan Tousi<sup>1</sup>, Marieke Mur<sup>1</sup>; <sup>1</sup>Western University, <sup>2</sup>Meta AI

*Talk 4, 3:15 pm, 34.14*

### **Local texture manipulation further illuminates the intrinsic difference between CNNs and human vision**

Alish Dipani<sup>1</sup>, Huaizu Jiang<sup>2</sup>, MiYoung Kwon<sup>1</sup>; <sup>1</sup>Department of Psychology, Northeastern University, Boston, MA, <sup>2</sup>Khoury College of Computer Sciences, Northeastern University, Boston, MA

*Talk 5, 3:30 pm, 34.15*

### **Evaluating the influence of ML models on human judgment of non-physical attributes in images**

Shruthi Sukumar<sup>1,2</sup>, Vijay Veerabadran<sup>3</sup>, Jascha Sohl-Dickstein<sup>1</sup>, Michael Mozer<sup>1</sup>, Gamaleldin Elsayed<sup>1</sup>; <sup>1</sup>Google Research, Brain Team, <sup>2</sup>University of Colorado Boulder, <sup>3</sup>University of California San Diego

*Talk 6, 3:45 pm, 34.16*

### **Reconstructing visual experience from a large-scale biologically realistic model of mouse primary visual cortex**

Reza Abbasi-Asl<sup>1</sup> ([reza.abbasiasl@ucsf.edu](mailto:reza.abbasiasl@ucsf.edu)), Yizhou Chi<sup>1</sup>, Huibo Yang<sup>1</sup>, Kael Dai<sup>2</sup>, Anton Arkhipov<sup>2</sup>; <sup>1</sup>UCSF, <sup>2</sup>Allen Institute for Brain Sciences

*Talk 7, 4:00 pm, 34.17*

## **Can deep convolutional networks explain the semantic structure that humans see in photographs?**

Siddharth Suresh<sup>1,2</sup> ([siddharth.suresh@wisc.edu](mailto:siddharth.suresh@wisc.edu)), Kushin Mukherjee<sup>1,2</sup>, Timothy T. Rogers<sup>1,2</sup>; <sup>1</sup>University of Wisconsin-Madison, Department of Psychology, <sup>2</sup>McPherson Eye Research Institute

# **Visual Search: Attention, memory**

*Talk Session: Sunday, May 21, 2023, 2:30 – 4:15 pm EDT, Talk Room 2*

*Moderator: Jeff Schall, York University, Canada*

*Talk 1, 2:30 pm, 34.21*

## **The involvement of the temporo-parietal junction in attentional reorienting and stimulus evaluation**

Cheol Hwan Kim<sup>1</sup> ([cheol.hwan.kim2391@gmail.com](mailto:cheol.hwan.kim2391@gmail.com)), Jongmin Lee<sup>1</sup>, Suk Won Han<sup>1</sup>; <sup>1</sup>Chungnam National University

*Talk 2, 2:45 pm, 34.22*

## **Resolving stages of processing in visual search: Frontal eye field neurophysiology with two degrees of difficulty**

Wanyi Lyu<sup>1</sup> ([wanyilyu@yorku.ca](mailto:wanyilyu@yorku.ca)), Thomas R. Reppert<sup>2</sup>, Jeffrey D. Schall<sup>1</sup>; <sup>1</sup>Department of Biology, Centre for Vision Research, Vision Science to Application, York University, Toronto ON Canada, <sup>2</sup>Department of Psychology, University of the South, Sewanee TN USA

*Talk 3, 3:00 pm, 34.23*

## **What do neurons in the superior colliculus encode during visual search?**

Abe Leite<sup>1</sup> ([abrahamjleite@gmail.com](mailto:abrahamjleite@gmail.com)), Hossein Adeli<sup>1</sup>, Rakesh Nanjappa<sup>2</sup>, Robert M. McPeck<sup>2</sup>, Gregory J. Zelinsky<sup>1</sup>; <sup>1</sup>Stony Brook University, <sup>2</sup>SUNY College of Optometry

*Talk 4, 3:15 pm, 34.24*

## **Exploring the neural correlates of naturalistic hybrid search tasks**

Matias Ison<sup>1</sup> ([matias.ison@nottingham.ac.uk](mailto:matias.ison@nottingham.ac.uk)), Joaquin Gonzalez<sup>1,2</sup>, Alessandra Barbosa<sup>1</sup>, Damian Care<sup>2</sup>, Anthony Ries<sup>3</sup>, Juan Kamienkowski<sup>2</sup>; <sup>1</sup>University of Nottingham, <sup>2</sup>University of Buenos Aires & National Scientific and Technical Research Council, Argentina, <sup>3</sup>U.S. Army Research Laboratory

*Talk 5, 3:30 pm, 34.25*

## **Explaining the guidance of search for real-world objects using quantitative similarity**

Brett Bahle<sup>1</sup> ([brettbahle@gmail.com](mailto:brettbahle@gmail.com)), Steven J. Luck<sup>1</sup>; <sup>1</sup>University of California - Davis

*Talk 6, 3:45 pm, 34.26*

## **Attention to object categories: Selection history determines the breadth of attentional**

## tuning during real-world object search

Douglas A. Addleman<sup>1</sup> ([daddleman@dartmouth.edu](mailto:daddleman@dartmouth.edu)), Reshma Rajasingh<sup>1</sup>, Viola S. Stoermer<sup>1</sup>; <sup>1</sup>Dartmouth College

*Talk 7, 4:00 pm, 34.27*

## Searching for a target in a natural scene does not allow for robust recall of scene or target details that are irrelevant to response expectations

Ryan E O'Donnell<sup>1</sup> ([ryanodonnell7@gmail.com](mailto:ryanodonnell7@gmail.com)), Nicolás Cárdenas-Miller<sup>1</sup>, Joyce Tam<sup>1</sup>, Dheeraj Varghese<sup>2</sup>, Brad Wyble<sup>1</sup>; <sup>1</sup>Pennsylvania State University, <sup>2</sup>Vrije University

# Attention: Mechanisms and models

*Talk Session: Sunday, May 21, 2023, 5:15 – 7:15 pm EDT, Talk Room 1*

*Moderator: Sarah Shomstein, The George Washington University*

*Talk 1, 5:15 pm, 35.11*

## Direct attention-independent expectation effects on visual perception

Alon Zivony<sup>1</sup> ([alonzivony@gmail.com](mailto:alonzivony@gmail.com)), Martin Eimer<sup>1</sup>; <sup>1</sup>Birkbeck, University of London

*Talk 2, 5:30 pm, 35.12*

## Attentional Ungluing: Uncertainty modulates task-irrelevant object representations in human early visual cortex

Xiaoli Zhang<sup>1</sup> ([xiaolizhang@gwu.edu](mailto:xiaolizhang@gwu.edu)), Andrew J. Collegio<sup>1</sup>, Dwight J. Kravitz<sup>1</sup>, Sarah Shomstein<sup>1</sup>; <sup>1</sup>The George Washington University

*Talk 3, 5:45 pm, 35.13*

## Perceptual awareness occurs along a graded continuum: Evidence from psychophysical scaling

Michael Cohen<sup>1,2</sup> ([michaelthecohen@gmail.com](mailto:michaelthecohen@gmail.com)), Jonathan Keefe<sup>3</sup>, Timothy Brady<sup>3</sup>; <sup>1</sup>Amherst College, Department of Psychology, <sup>2</sup>MIT, Department of Brain and Cognitive Sciences, <sup>3</sup>UCSD, Department of Psychology

*Talk 4, 6:00 pm, 35.14*

## Consequences of relaying top-down attentional modulations via neurons with high-dimensional selectivity

Sunyoung Park<sup>1</sup> ([supark@ucsd.edu](mailto:supark@ucsd.edu)), John Serences<sup>1</sup>; <sup>1</sup>University of California San Diego

*Talk 5, 6:15 pm, 35.15*

## Frontocentral EEG activity phase predicts subsequent visual target detection in healthy participants but not in schizophrenia

Eric Reavis<sup>1,2</sup> ([ereavis@ucla.edu](mailto:ereavis@ucla.edu)), Jonathan Wynn<sup>2,1</sup>, Michael Green<sup>1,2</sup>; <sup>1</sup>University of California, Los Angeles, <sup>2</sup>VA Greater Los Angeles Healthcare System

*Talk 6, 6:30 pm, 35.16*

## Top-down effects on Cross-Modal Stimulus Processing: A Predictive Coding Framework

Soukhin Das<sup>1,2</sup> ([skndas@ucdavis.edu](mailto:skndas@ucdavis.edu)), Sreenivasan Meyyappan<sup>1,2</sup>, Mingzhou Ding<sup>3</sup>, George R. Mangun<sup>1,2</sup>;  
<sup>1</sup>Center for Mind and Brain, University of California Davis, <sup>2</sup>Department of Psychology, University of California Davis, <sup>3</sup>Pruitt Family Department of Biomedical Engineering, University of Florida

*Talk 7, 6:45 pm, 35.17*

### **A novel eye-tracking paradigm to investigate the focus of object-based attention**

Lasyapriya Pidaparathi<sup>1</sup> ([lasyapriya.pidaparathi@vanderbilt.edu](mailto:lasyapriya.pidaparathi@vanderbilt.edu)), Frank Tong<sup>1</sup>; <sup>1</sup>Vanderbilt University

*Talk 8, 7:00 pm, 35.18*

### **Reconstruction-guided attention improves the object recognition robustness of neural networks**

Seoyoung Ahn<sup>1</sup> ([ahnseoyoung@gmail.com](mailto:ahnseoyoung@gmail.com)), Hossein Adeli<sup>1</sup>, Gregory Zelinsky<sup>1</sup>; <sup>1</sup>Stony Brook University

## **Color, Light and Materials: Cones to cognition**

*Talk Session: Sunday, May 21, 2023, 5:15 – 7:15 pm EDT, Talk Room 2*

*Moderator: Karen Schloss, University of Wisconsin*

*Talk 1, 5:15 pm, 35.21*

### **Psychophysical and image-based characterization of macular pigment using structured light**

Andrew E. Silva<sup>1</sup> ([a8silva@uwaterloo.ca](mailto:a8silva@uwaterloo.ca)), Connor Kapahi<sup>2,3</sup>, David G. Cory<sup>3,5</sup>, Mukhit Kulmaganbetov<sup>4</sup>, Melanie Mungalsingh<sup>1</sup>, Taranjit Singh<sup>4</sup>, Benjamin Thompson<sup>1,4</sup>, Dmitry A. Pushin<sup>2,3,4</sup>, Dusan Sarenac<sup>3,4</sup>; <sup>1</sup>School of Optometry and Vision Science, University of Waterloo, Waterloo, ON, Canada, <sup>2</sup>Department of Physics and Astronomy, University of Waterloo, Waterloo, ON, Canada, <sup>3</sup>Institute for Quantum Computing, University of Waterloo, Waterloo, ON, Canada, <sup>4</sup>Centre for Eye and Vision Research, 17W Science Park, Hong Kong, <sup>5</sup>Department of Chemistry, University of Waterloo, Waterloo, ON, Canada

*Talk 2, 5:30 pm, 35.22*

### **A deep convolutional neural network trained to infer surface reflectance is deceived by mid-level lightness illusions**

Jaykishan Patel<sup>1</sup> ([jay96@my.yorku.ca](mailto:jay96@my.yorku.ca)), Alban Flachot<sup>1</sup>, Javier Vazquez-Corral<sup>2</sup>, David H. Brainard<sup>3</sup>, Thomas S. A. Wallis<sup>4</sup>, Marcus A. Brubaker<sup>1</sup>, Richard F. Murray<sup>1</sup>; <sup>1</sup>York University, <sup>2</sup>Universitat Autònoma de Barcelona, <sup>3</sup>University of Pennsylvania, <sup>4</sup>Technische Universität Darmstadt

*Talk 3, 5:45 pm, 35.23*

### **Dynamic achromatic color computation based on fixational eye movements and edge integration**

Michael Rudd<sup>1</sup> ([mrudd@unr.edu](mailto:mrudd@unr.edu)); <sup>1</sup>University of Nevada, Reno

*Talk 4, 6:00 pm, 35.24*

### **Color discrimination and chromatic balance perception after adaptation to natural and color-reflected scenes.**

Beata Wozniak<sup>1</sup>, John Maule<sup>1</sup>, Anna Franklin<sup>1</sup>, Jenny Bosten<sup>1</sup>; <sup>1</sup>University of Sussex

Talk 5, 6:15 pm, 35.25

## Predicting gloss sensitivity across variations in surface shape, illumination and viewpoint

Jacob R. Cheeseman<sup>1</sup> ([jacob.cheeseman@psychol.uni-giessen.de](mailto:jacob.cheeseman@psychol.uni-giessen.de)), James A. Ferwerda<sup>2</sup>, Takuma Morimoto<sup>1,3</sup>, Roland W. Fleming<sup>1,4</sup>; <sup>1</sup>Justus Liebig University Giessen, <sup>2</sup>Rochester Institute of Technology, <sup>3</sup>University of Oxford, <sup>4</sup>Center for Mind, Brain and Behavior, Marburg, Germany

Talk 6, 6:30 pm, 35.26

## Object-based computations for color constancy

Laysa Hedjar<sup>1</sup> ([laysa.hedjar@psychol.uni-giessen.de](mailto:laysa.hedjar@psychol.uni-giessen.de)), Raquel Gil Rodríguez<sup>1</sup>, Matteo Toscani<sup>2</sup>, Dar'ya Guarnera<sup>3</sup>, Giuseppe Claudio Guarnera<sup>3,4</sup>, Karl R. Gegenfurtner<sup>1</sup>; <sup>1</sup>Justus-Liebig-Universität Gießen, Germany, <sup>2</sup>Bournemouth University, UK, <sup>3</sup>Norwegian University of Science and Technology, Gjøvik, Norway, <sup>4</sup>University of York, UK

Talk 7, 6:45 pm, 35.27

## How do people map colors to concepts? Modeling assignment inference as evidence accumulation

Kushin Mukherjee<sup>1</sup> ([kmukherjee2@wisc.edu](mailto:kmukherjee2@wisc.edu)), Laurent Lessard<sup>2</sup>, Karen B. Schloss<sup>1</sup>; <sup>1</sup>University of Wisconsin-Madison, <sup>2</sup>Northeastern University

Talk 8, 7:00 pm, 35.28

## Lexical effects on remembered colors

Delwin Lindsey<sup>1</sup> ([lindsey.43@osu.edu](mailto:lindsey.43@osu.edu)), Prutha Deshpande<sup>1</sup>, Angela Brown<sup>1</sup>; <sup>1</sup>The Ohio State University

# Spatial Vision

Talk Session: Monday, May 22, 2023, 8:15 – 9:45 am EDT, Talk Room 1

Moderator: Dennis Levi, UC Berkeley

Talk 1, 8:15 am, 41.11

## How do visual abilities relate to each other?

Simona Garobbio<sup>1</sup> ([simona.garobbio@epfl.ch](mailto:simona.garobbio@epfl.ch)), Marina Kunchulia<sup>2</sup>, Michael H. Herzog<sup>1</sup>; <sup>1</sup>EPFL, <sup>2</sup>Free University of Tbilisi

Talk 2, 8:30 am, 41.12

## Spatial Frequency Maps in Human Visual Cortex: A Replication and Extension

Jiyeong Ha<sup>1</sup> ([jiyeong.ha@nyu.edu](mailto:jiyeong.ha@nyu.edu)), William Broderick<sup>2</sup>, Kendrick Kay<sup>3</sup>, Jonathan Winawer<sup>1</sup>; <sup>1</sup>New York University, <sup>2</sup>Flatiron Institute, <sup>3</sup>University of Minnesota

Talk 3, 8:45 am, 41.13

## Crowding does not follow Gestalt principles in foveal and amblyopic vision

John A. Greenwood<sup>1</sup> ([john.greenwood@ucl.ac.uk](mailto:john.greenwood@ucl.ac.uk)), Alexandra Zmuda<sup>1</sup>, Annegret H. Dahlmann-Noor<sup>2,3</sup>, Alexandra V. Kalpadakis-Smith<sup>1</sup>; <sup>1</sup>University College London, London, UK, <sup>2</sup>Moorfields Eye Hospital, London, UK, <sup>3</sup>NIHR



Biomedical Research Centre, London, UK

*Talk 4, 9:00 am, 41.14*

### **A texture statistics encoding model reveals sensitivity to mid-level features across human visual cortex**

Margaret Henderson<sup>1</sup> ([mmhender@cmu.edu](mailto:mmhender@cmu.edu)), Michael Tarr<sup>1</sup>, Leila Wehbe<sup>1</sup>; <sup>1</sup>Carnegie Mellon University

*Talk 5, 9:15 am, 41.15*

### **Mapping triangles and breads in shape spaces: a big-data approach to estimating category distributions**

Filipp Schmidt<sup>1,2</sup> ([filipp.schmidt@psychol.uni-giessen.de](mailto:filipp.schmidt@psychol.uni-giessen.de)), Roland W. Fleming<sup>1,2</sup>; <sup>1</sup>Justus Liebig University Giessen, <sup>2</sup>Center for Mind, Brain and Behavior (CMBB), Marburg and Giessen

*Talk 6, 9:30 am, 41.16*

### **V4 neurons are tuned for local and non-local features of natural planar shape**

Timothy D. Oleskiw<sup>1,5</sup> ([oleskiw@nyu.edu](mailto:oleskiw@nyu.edu)), James H. Elder<sup>2</sup>, Ingo Fruend<sup>6</sup>, Gerick M. Lee<sup>1</sup>, Andrew Sutter<sup>1,3</sup>, Anitha Pasupathy<sup>4</sup>, Eero P. Simoncelli<sup>1,5</sup>, J. Anthony Movshon<sup>1</sup>, Lynne Kiorpes<sup>1</sup>, Najib Majaj<sup>1</sup>; <sup>1</sup>New York University, <sup>2</sup>York University, <sup>3</sup>Drew University, <sup>4</sup>University of Washington, <sup>5</sup>Flatiron Institute Center for Computational Neuroscience, <sup>6</sup>Verbally GmbH

## **Motion: Neural mechanisms, models, perception**

*Talk Session: Monday, May 22, 2023, 8:15 – 9:45 am EDT, Talk Room 2*

*Moderator: Alan Stocker, University of Pennsylvania*

*Talk 1, 8:15 am, 41.21*

### **Laminar fMRI using spin-echo BOLD reveals feedback and feedforward representations in the human primary visual cortex**

Royoung Kim<sup>1,2</sup> ([roespigas@gmail.com](mailto:roespigas@gmail.com)), SoHyun Han<sup>1,2</sup>, Won Mok Shim<sup>1,2</sup>; <sup>1</sup>Center for Neuroscience Imaging Research, Institute for Basic Science (IBS), Suwon, Korea, Republic of., <sup>2</sup>Sungkyunkwan University (SKKU), Suwon, Korea, Republic of.

*Talk 2, 8:30 am, 41.22*

### **Temporal evolution processes of a motion-induced position shift ride neural theta oscillations**

Ryohei Nakayama<sup>1</sup>, Kaoru Amano<sup>2</sup>, Ikuya Murakami<sup>1</sup>; <sup>1</sup>Department of Psychology, The University of Tokyo, <sup>2</sup>Graduate School of Information Science and Technology, The University of Tokyo

*Talk 3, 8:45 am, 41.23*

### **Observed social touch is processed in a rapid, feedforward manner: an EEG-fMRI fusion study**

Haemy Lee Masson<sup>1</sup> ([haemy.leemasson@jhu.edu](mailto:haemy.leemasson@jhu.edu)), Leyla Isik<sup>1</sup>; <sup>1</sup>Johns Hopkins University

*Talk 4, 9:00 am, 41.24*

## What causes motion silencing

Qihan Wu<sup>1</sup> ([qw30@jhu.edu](mailto:qw30@jhu.edu)), Jonathan I. Flombaum<sup>1</sup>; <sup>1</sup>Johns Hopkins University

*Talk 5, 9:15 am, 41.25*

## Knowledge of other's biomechanical constraints shapes movement perception

Antoine Vandenberghe<sup>1</sup> ([antoine.vandenberghe@uclouvain.be](mailto:antoine.vandenberghe@uclouvain.be)), Gilles Vannuscorps<sup>1,2</sup>; <sup>1</sup>Psychological Sciences Research Institute, Université catholique de Louvain, Belgium, <sup>2</sup>Institute of Neuroscience, Université catholique de Louvain, Belgium

*Talk 6, 9:30 am, 41.26*

## Heading estimation from optic flow is Bayesian but strongly modulated by the size of the experimental response range

Linghao Xu<sup>1</sup> ([linghaoxu11@gmail.com](mailto:linghaoxu11@gmail.com)), Qi Sun<sup>2,3</sup>, Alan Stocker<sup>4</sup>; <sup>1</sup>Department of Neuroscience, Albert Einstein College of Medicine, Bronx, NY, U.S.A, <sup>2</sup>Department of Psychology, Zhejiang Normal University, Jinhua, P.R.C, <sup>3</sup>Key Laboratory of Intelligent Education Technology and Application of Zhejiang Province, Zhejiang Normal University, Jinhua, P.R.C, <sup>4</sup>Department of Psychology, University of Pennsylvania, Philadelphia PA, U.S.A

# Development: Disorders

*Talk Session: Monday, May 22, 2023, 10:45 am – 12:15 pm EDT, Talk Room 1*

*Moderator: Shlomit Ben-Ami, MIT*

*Talk 1, 10:45 am, 42.11*

## Developmental changes in occipital alpha rhythms: Recording EEG during public engagement events

Gemma Learmonth<sup>1</sup> ([gemma.learmonth@glasgow.ac.uk](mailto:gemma.learmonth@glasgow.ac.uk)), Christopher Turner<sup>1</sup>, Satu Baylan<sup>1</sup>, Martina Bracco<sup>2</sup>, Gabriela Cruz<sup>1</sup>, Simon Hanzal<sup>1</sup>, Marine Keime<sup>1</sup>, Isaac Kuye<sup>1</sup>, Deborah McNeill<sup>1</sup>, Zika Ng<sup>1</sup>, Mircea van der Plas<sup>1</sup>, Manuela Ruzzoli<sup>3</sup>, Jelena Trajkovic<sup>1</sup>, Domenica Veniero<sup>4</sup>, Sarah Wale<sup>1</sup>, Sarah Whear<sup>1</sup>, Gregor Thut<sup>1</sup>; <sup>1</sup>University of Glasgow, Scotland, <sup>2</sup>Hôpital de la Pitié Salpêtrière, Paris, France, <sup>3</sup>Basque Center on Cognition Brain and Language (BCBL), Donostia/San Sebastian, Spain, <sup>4</sup>University of Nottingham, UK

*Talk 2, 11:00 am, 42.12*

## Reliable and predictive non-perceptual representations in primary visual cortex during attempts at visual imagery in aphantasia

Xinyu Zhang<sup>1</sup>, Shuai Chang<sup>1</sup>, Joel Pearson<sup>2</sup>, Ming Meng<sup>1</sup>; <sup>1</sup>South China Normal University, <sup>2</sup>The University of New South Wales

*Talk 3, 11:15 am, 42.13*

## Responses to non-linguistic auditory transients in the medial geniculate nucleus are diagnostic for dyslexia in individual subjects

Keith Schneider<sup>1</sup> ([keithas@udel.edu](mailto:keithas@udel.edu)), Qianli Meng<sup>2</sup>; <sup>1</sup>University of Delaware

*Talk 4, 11:30 am, 42.14*

## The impact of cerebral visual impairment on school related competences in

## elementary school children

Sara Monteiro<sup>1</sup> ([sara.monteiro@uni.lu](mailto:sara.monteiro@uni.lu)), Géraldine Hipp<sup>2</sup>, Pascale Esch<sup>1</sup>, Sonja Ugen<sup>1</sup>; <sup>1</sup>Luxembourg Centre for Educational Testing, University of Luxembourg, <sup>2</sup>Centre pour le Développement des Compétences relatives à la Vue, MENJE

*Talk 5, 11:45 am, 42.15*

## Development of biological motion perception: Insights from late-sighted children

Shlomit Ben-Ami<sup>1,2</sup> ([shlomit@mit.edu](mailto:shlomit@mit.edu)), Chetan Ralekar<sup>1</sup>, Dhun Verma<sup>3</sup>, Kashish Tiwari<sup>3</sup>, Mrinalini Yadav<sup>3</sup>, Priti Gupta<sup>3,4</sup>, Pragya Shah<sup>3</sup>, Suma Ganesh<sup>5</sup>, Nikolaus F. Troje<sup>6</sup>, Pawan Sinha<sup>1</sup>; <sup>1</sup>MIT Department of Brain and Cognitive Sciences, Cambridge, MA, USA, <sup>2</sup>Sagol School of Neuroscience, School of Psychological Sciences, Tel-Aviv University, Tel-Aviv, Israel, <sup>3</sup>The Project Prakash Center, Delhi, India, <sup>4</sup>Amarnath and Shashi Khosla School of Information Technology, Indian Institute of Technology, Delhi, India, <sup>5</sup>Department of Ophthalmology, Dr. Shroff's Charity Eye Hospital, Delhi, India, <sup>6</sup>York University, Toronto, Canada

*Talk 6, 12:00 pm, 42.16*

## Reduced perception-action dissociation in children with amblyopia

Zoha Ahmad<sup>1</sup> ([zohahmad@my.yorku.ca](mailto:zohahmad@my.yorku.ca)), Krista Kelly<sup>2</sup>, Erez Freud<sup>1</sup>; <sup>1</sup>York University, <sup>2</sup>Retina Foundation of the Southwest

# 3D: Disparity and shape

*Talk Session: Monday, May 22, 2023, 10:45 am – 12:15 pm EDT, Talk Room 2*

*Moderator: Fulvio Domini, Brown University*

*Talk 1, 10:45 am, 42.21*

## Warping a disparity field: cooperation between shading and disparity for sparsely defined surfaces

Celine Aubuchon<sup>1</sup> ([celine.d.aubuchon@gmail.com](mailto:celine.d.aubuchon@gmail.com)), Jovan Kemp<sup>1</sup>, Fulvio Domini<sup>1</sup>; <sup>1</sup>Brown University

*Talk 2, 11:00 am, 42.22*

## Disparity modulations from both fixational vergence and version contribute to stereopsis

Yuanhao H. Li<sup>1</sup> ([yli162@u.rochester.edu](mailto:yli162@u.rochester.edu)), Janis Intoy<sup>1</sup>, Jonathan D. Victor<sup>2</sup>, Michele Rucci<sup>1</sup>; <sup>1</sup>University of Rochester, <sup>2</sup>Weill Cornell Medical College

*Talk 3, 11:15 am, 42.23*

## Stereoscopic slant contrast revisited

Clara Wang<sup>1</sup> ([clara.wang@mail.mcgill.ca](mailto:clara.wang@mail.mcgill.ca)), Yoel Yakobi<sup>1</sup>, Frederick Kingdom<sup>1</sup>; <sup>1</sup>McGill University

*Talk 4, 11:30 am, 42.24*

## Cardinal viewpoints of 3D objects predicted by 2D optical flow model

Emma E.M. Stewart<sup>1</sup> ([emma.e.m.stewart@gmail.com](mailto:emma.e.m.stewart@gmail.com)), Roland W. Fleming<sup>1,3</sup>, Alexander C. Schütz<sup>2,3</sup>; <sup>1</sup>Justus-Liebig University Giessen, Germany, <sup>2</sup>University of Marburg, Germany, <sup>3</sup>Center for Mind, Brain and Behavior,

Universities of Marburg and Giessen, Germany

*Talk 5, 11:45 am, 42.25*

### **Humans and 3D neural field models make similar 3D shape judgements**

Thomas OConnell<sup>1</sup> ([tpo@mit.edu](mailto:tpo@mit.edu)), Tyler Bonnen<sup>2</sup>, Yoni Friedman<sup>1</sup>, Ayush Tewari<sup>1</sup>, Josh Tenenbaum<sup>1</sup>, Vincent Sitzmann<sup>1</sup>, Nancy Kanwisher<sup>1</sup>; <sup>1</sup>MIT, <sup>2</sup>Stanford University

*Talk 6, 12:00 pm, 42.26*

### **SimpleXR: An open-source Unity toolbox for simplifying vision research using augmented and virtual reality**

Justin Kasowski<sup>1</sup>, Michael Beyeler<sup>1</sup>; <sup>1</sup>University of California, Santa Barbara

## **Plasticity and Learning 2**

*Talk Session: Tuesday, May 23, 2023, 8:15 – 9:45 am EDT, Talk Room 1*

*Moderator: Biyu He, NYU*

*Talk 1, 8:15 am, 51.11*

### **Mapping the invariance properties of perceptual priors in one-shot perceptual learning**

Ayaka Hachisuka<sup>1</sup> ([ah5385@nyu.edu](mailto:ah5385@nyu.edu)), Jonathan D. Shor<sup>1</sup>, Xujin C. Liu<sup>2</sup>, Eric K. Oermann<sup>3</sup>, Biyu J. He<sup>1</sup>; <sup>1</sup>New York University Grossman School of Medicine, <sup>2</sup>New York University Tandon school of engineering, <sup>3</sup>New York University Langone Health

*Talk 2, 8:30 am, 51.12*

### **Masking that disrupts late phases of visual processing eliminates location specificity of visual perceptual learning**

Yusuke Nakashima<sup>1</sup> ([yusuke\\_nakashima@brown.edu](mailto:yusuke_nakashima@brown.edu)), Yuka Sasaki<sup>1</sup>, Takeo Watanabe<sup>1</sup>; <sup>1</sup>Brown University

*Talk 3, 8:45 am, 51.13*

### **Alterations in Orientation-Selective Early Visual Neural Functions Are Associated With Reduced Orientation-Dependent Surround Suppression In Schizophrenia**

Samuel Klein<sup>1</sup> ([klei0742@umn.edu](mailto:klei0742@umn.edu)), Collin Teich<sup>1</sup>, Eric Rawls<sup>1</sup>, Cheryl A. Olman<sup>1</sup>, Scott R. Sponheim<sup>1,2</sup>; <sup>1</sup>University of Minnesota-Twin Cities, Departments of Psychology and Psychiatry, <sup>2</sup>Minneapolis Veterans Affairs Medical Center

*Talk 4, 9:00 am, 51.14*

### **Comparing retinotopic maps of children and adults reveals a late-stage change in how V1 samples the visual field**

Marc Himmelberg<sup>1</sup>, Ekin Tünçok<sup>1</sup>, Jesse Gomez<sup>2</sup>, Kalanit Grill-Spector<sup>3</sup>, Marisa Carrasco<sup>1</sup>, Jonathan Winawer<sup>1</sup>; <sup>1</sup>New York University, <sup>2</sup>Princeton University, <sup>3</sup>Stanford University

*Talk 5, 9:15 am, 51.15*

### **A neural network model of category-learning induced transfer of visual perceptual learning**

Luke Rosedahl<sup>1</sup>, Thomas Serre<sup>1</sup>, Takeo Watanabe<sup>1</sup>; <sup>1</sup>Brown University

*Talk 6, 9:30 am, 51.16*

## **Feature Representation Covaries With Practice Effects Around The Visual Field**

David Tu<sup>1</sup> ([david.tu@gmail.com](mailto:david.tu@gmail.com)), Shutian Xue<sup>1</sup>, Marisa Carrasco<sup>1</sup>; <sup>1</sup>NYU

## **Binocular Vision**

*Talk Session: Tuesday, May 23, 2023, 8:15 – 9:45 am EDT, Talk Room 2*

*Moderator: Johannes Burge, University of Pennsylvania*

*Talk 1, 8:15 am, 51.21*

### **Vergence anomalies are associated with impaired stereopsis in the central visual field**

Aidan Gauper<sup>1</sup> ([gauper@berkeley.edu](mailto:gauper@berkeley.edu)), Suzanne McKee<sup>1</sup>, Dennis Levi<sup>2</sup>, Preeti Verghese<sup>1</sup>; <sup>1</sup>Smith-Kettlewell Eye Research Institute, <sup>2</sup>UC Berkeley

*Talk 2, 8:30 am, 51.22*

### **Retinal eccentricity strongly modulates how interocular delays are impacted by image differences**

Callista Dyer<sup>1</sup>, Johannes Burge<sup>1,2,3</sup>; <sup>1</sup>University of Pennsylvania, <sup>2</sup>Neuroscience Graduate Group, University of Pennsylvania, <sup>3</sup>Bioengineering Graduate Group, University of Pennsylvania

*Talk 3, 8:45 am, 51.23*

### **Does contrast adaptation influence the Pulfrich phenomenon?**

Aymen Sahal<sup>1</sup>, Alexandre Reynaud<sup>1</sup>, Robert Hess<sup>2</sup>; <sup>1</sup>Department of Ophthalmology and Visual Sciences, McGill University, <sup>2</sup>McGill Vision Research Unit

*Talk 4, 9:00 am, 51.24*

### **Coarse-to-fine interaction on perceived depth in compound grating**

Pei-Yin Chen<sup>1</sup> ([d02227102@ntu.edu.tw](mailto:d02227102@ntu.edu.tw)), Chien-Chung Chen<sup>1,2</sup>, Shin'ya Nishida<sup>3,4</sup>; <sup>1</sup>Department of Psychology, National Taiwan University, <sup>2</sup>Center for Neurobiology and Cognitive Science, National Taiwan University, Taipei, Taiwan, <sup>3</sup>Department of Intelligence Science and Technology, Graduate School of Informatics, Kyoto University, <sup>4</sup>NTT Communication Science Laboratories, Nippon Telegraph and Telephone Corporation

*Talk 5, 9:15 am, 51.25*

### **MEG Reveals Distinct Dorsal and Ventral Streams for Binocular Rivalry Dominance and Suppression**

Janine Mendola<sup>1</sup> ([janine.mendola@mcgill.ca](mailto:janine.mendola@mcgill.ca)), Elizabeth Bock<sup>2</sup>, Jeremy Fesi<sup>1</sup>, Jason Da Silve Castenheira<sup>2</sup>, Sylvain Baillet<sup>2</sup>; <sup>1</sup>Department of Ophthalmology and Vision Sciences, McGill University, Montreal, QC H9G 1A4, <sup>2</sup>Department of Neurology and Neurosurgery and the McConnell Brain Imaging Centre, Montreal Neurological Institute, McGill University

*Talk 6, 9:30 am, 51.26*

### **Population models of binocular disparity tuning predict the direction of perceived**

## depth in correlated and anticorrelated random dot stereograms

Paul Hibbard<sup>1</sup> ([phibbard@essex.ac.uk](mailto:phibbard@essex.ac.uk)), Jordi Asher<sup>1</sup>; <sup>1</sup>University of Essex

# Visual Memory: Space, time, features, objects

*Talk Session: Tuesday, May 23, 2023, 10:45 am – 12:30 pm EDT, Talk Room 1*

*Moderator: Brian Scholl, Yale University*

*Talk 1, 10:45 am, 52.11*

## A signal-detection model evaluates feature dependence in visual long-term memory for real-world objects

Igor Utochkin<sup>1</sup> ([iutochkin@uchicago.edu](mailto:iutochkin@uchicago.edu)), Daniil Grigorev<sup>2</sup>; <sup>1</sup>University of Chicago, <sup>2</sup>HSE University

*Talk 2, 11:00 am, 52.12*

## Deriving the Representational Space and Memorability of Object Concepts and Features

Meng-Chien Lee<sup>1</sup> ([mlee26@uchicago.edu](mailto:mlee26@uchicago.edu)), Marc G. Berman<sup>1</sup>, Wilma A. Bainbridge<sup>1</sup>, Andrew J. Stier<sup>1</sup>; <sup>1</sup>University of Chicago

*Talk 3, 11:15 am, 52.13*

## Individual preferences for space or time in visual working memory are related to spatial and temporal abilities and persist over months

Anna Heuer<sup>1</sup> ([anna.heuer@hu-berlin.de](mailto:anna.heuer@hu-berlin.de)), Martin Rolfs<sup>1</sup>; <sup>1</sup>Department of Psychology, Humboldt-Universität zu Berlin, Germany

*Talk 4, 11:30 am, 52.14*

## Micro-timing of iconic memory readout

Karla Matic<sup>1,2,3</sup>, Issam Tafech<sup>1,3</sup>, John-Dylan Haynes<sup>1,2,3,4,5</sup>; <sup>1</sup>Charité—Universitätsmedizin Berlin, <sup>2</sup>Max Planck School of Cognition, <sup>3</sup>Humboldt-Universität zu Berlin, <sup>4</sup>German Center for Neurodegenerative Diseases, <sup>5</sup>Technische Universität Dresden

*Talk 5, 11:45 am, 52.15*

## The “unfinishedness” of dynamic events is spontaneously extracted in visual processing: A new “Visual Zeigarnik Effect”

Joan Danielle K. Ongchoco<sup>1</sup> ([joan.ongchoco@yale.edu](mailto:joan.ongchoco@yale.edu)), Kimberly W. Wong<sup>1</sup>, Brian Scholl<sup>1</sup>; <sup>1</sup>Yale University

*Talk 6, 12:00 pm, 52.16*

## Lingering distractor representations bias memory reports

Ziyao Zhang<sup>1</sup> ([ziyaopsy@gmail.com](mailto:ziyaopsy@gmail.com)), Jarrod A. Lewis-Peacock<sup>1</sup>; <sup>1</sup>The University of Texas at Austin

*Talk 7, 12:15 pm, 52.17*

## It's a match! Visual template matching enhances concurrent task processing

Yi Ni Toh<sup>1</sup> ([tohxx011@umn.edu](mailto:tohxx011@umn.edu)), Vanessa G. Lee; <sup>1</sup>University of Minnesota Twin-Cities

# Object Recognition: Categories, neural mechanisms

Talk Session: Tuesday, May 23, 2023, 10:45 am – 12:30 pm EDT, Talk Room 2

Moderator: Arash Afraz, NIMH/NIH

Talk 1, 10:45 am, 52.21

## Preserved visual categorical coding in the ventral occipito-temporal cortex despite transient early blindness and permanent alteration in the functional response of early visual regions

Olivier Collignon<sup>1</sup>, Mohamed Rezk<sup>2</sup>, Xiaoqing Gao<sup>3</sup>, Junghyun Nam<sup>4</sup>, Zhong-Xu Liu<sup>5</sup>, Terri Lewis<sup>6</sup>, Daphne Maurer<sup>7</sup>, Stefania Mattioni<sup>8</sup>; <sup>1</sup>UCLouvain, <sup>2</sup>HES-SO Valais-Wallis, The Sense Innovation and Research Center, <sup>3</sup>Zhejiang University, China, <sup>4</sup>University of Toronto, <sup>5</sup>McMaster University, <sup>6</sup>Ghent University

Talk 2, 11:00 am, 52.22

## Perceptography: Revealing the causal contribution of the inferior temporal cortex to visual perception.

Elia Shahbazi<sup>1</sup> ([elia.shahbazi@nih.gov](mailto:elia.shahbazi@nih.gov)), Timothy Ma<sup>2</sup>, Arash Afraz<sup>1</sup>; <sup>1</sup>National Institutes of Health, <sup>2</sup>Center for Neural Science, New York University

Talk 3, 11:15 am, 52.23

## Both mOTS-words and pOTS-words prefer emoji stimuli over text stimuli during a reading task

Alexia Dalski<sup>1,2</sup> ([alexia.dalski@uni-marburg.de](mailto:alexia.dalski@uni-marburg.de)), Holly Kular<sup>3</sup>, Julia G. Jorgensen<sup>3</sup>, Kalanit Grill-Spector<sup>3,4</sup>, Mareike Grotheer<sup>1,2</sup>; <sup>1</sup>Department of Psychology, Philipps-Universität Marburg Germany, <sup>2</sup>Center for Mind, Brain and Behavior – CMBB, Philipps-Universität Marburg and Justus-Liebig-Universität Giessen, Germany, <sup>3</sup>Department of Psychology, Stanford University, USA, <sup>4</sup>Wu Tsai Neurosciences Institute, Stanford University, USA

Talk 4, 11:30 am, 52.24

## Objects, faces, and spaces

Heida Maria SIGURDARDOTTIR<sup>1,3</sup> ([heidasi@hi.is](mailto:heidasi@hi.is)), Inga María Ólafsdóttir<sup>2,3</sup>; <sup>1</sup>University of Iceland, <sup>2</sup>Reykjavik University, <sup>3</sup>Icelandic Vision Lab

Talk 5, 11:45 am, 52.25

## THINGS-drawings: A large-scale dataset containing human sketches of 1,854 object concepts

Judith E. Fan<sup>1</sup> ([judithfan@gmail.com](mailto:judithfan@gmail.com)), Kushin Mukherjee<sup>2</sup>, Holly Huey<sup>1</sup>, Martin N. Hebart<sup>3,4</sup>, Wilma A. Bainbridge<sup>5</sup>; <sup>1</sup>University of California, San Diego, <sup>2</sup>University of Wisconsin-Madison, <sup>3</sup>Justus Liebig University, Giessen, Germany, <sup>4</sup>Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany, <sup>5</sup>University of Chicago

Talk 6, 12:00 pm, 52.26

## Uncovering neural-based visual-orthographic representations from mental imagery

Shouyu Ling<sup>1,2</sup> ([shouyu.ling@mail.utoronto.ca](mailto:shouyu.ling@mail.utoronto.ca)), Lorna García Pentón<sup>3</sup>, Blair C. Armstrong<sup>1,3</sup>, Andy C.H. Lee<sup>1,4</sup>,

Adrian Nestor<sup>1</sup>; <sup>1</sup>Department of Psychology at Scarborough, University of Toronto, Toronto, Ontario, Canada, <sup>2</sup>Department of Ophthalmology, University of Pittsburgh, Pittsburgh, PA, US, <sup>3</sup>MRC Cognition & Brain Sciences Unit, University of Cambridge, Cambridge, UK, <sup>4</sup>BCBL. Basque Center on Cognition, Brain, and Language, San Sebastián, Spain, <sup>5</sup>Rotman Research Institute, Baycrest Centre, Toronto, Ontario, Canada

*Talk 7, 12:15 pm, 52.27*

## **Putative excitatory and inhibitory neurons in the macaque inferior temporal cortex play distinct roles in core object recognition**

Sachi Sanghavi<sup>1</sup>, Kohitij Kar<sup>2</sup>; <sup>1</sup>University of Wisconsin–Madison, <sup>2</sup>York University

# **Eye Movements: Neural processes and models**

*Talk Session: Tuesday, May 23, 2023, 2:30 – 4:15 pm EDT, Talk Room 1*

*Moderator: Robert McPeck, SUNY*

*Talk 1, 2:30 pm, 54.11*

## **Object-based saccadic enhancement of superior colliculus activity**

Christopher Conroy<sup>1</sup> ([cconroy@sunyopty.edu](mailto:cconroy@sunyopty.edu)), Hossein Adeli<sup>2</sup>, Abe Leite<sup>2</sup>, Gregory J. Zelinsky<sup>2</sup>, Robert M. McPeck<sup>1</sup>; <sup>1</sup>SUNY College of Optometry, <sup>2</sup>Stony Brook University

*Talk 2, 2:45 pm, 54.12*

## **Relating trial-to-trial variability in superior colliculus visual responses to saccadic reaction time variability**

Carlotta Trottenberg<sup>1</sup> ([c.trottenberg@gmail.com](mailto:c.trottenberg@gmail.com)), Ziad Hafed<sup>1</sup>; <sup>1</sup>University of Tübingen

*Talk 3, 3:00 pm, 54.13*

## **Neural subpopulations in marmoset area MTC but not MT show extra-retinal tuning for saccade direction**

Amy Bucklaew<sup>1</sup> ([amy\\_bucklaew@urmc.rochester.edu](mailto:amy_bucklaew@urmc.rochester.edu)), Shanna Coop<sup>2</sup>, Jude Mitchell<sup>1,2</sup>; <sup>1</sup>Neuroscience Graduate Program, University of Rochester, <sup>2</sup>Brain and Cognitive Sciences, University of Rochester

*Talk 4, 3:15 pm, 54.14*

## **Visual landmark information is multiplexed with target information in the visual responses of prefrontal gaze centres.**

Vishal Bharmuria<sup>1</sup> ([bhav2501@yorku.ca](mailto:bhav2501@yorku.ca)), Adrian Schütz<sup>2</sup>, Xiaogang Yan<sup>1</sup>, Hongying Wang<sup>1</sup>, Frank Bremmer<sup>2</sup>, John Douglas Crawford<sup>1</sup>; <sup>1</sup>Centre for Vision Research (CVR) and Vision: Science to Applications (VISTA), York University, <sup>2</sup>Department of Neurophysics, Phillips Universität Marburg and Center for Mind, Brain and Behavior – CMBB, Philipps-Universität Marburg and Justus-Liebig-Universität Giessen

*Talk 5, 3:30 pm, 54.15*

## **One Preferred Retinal Locus to rule them all: A fine dissection of the PRL in space and time**

Josselin Gautier<sup>1,2</sup> ([josselingautier@gmail.com](mailto:josselingautier@gmail.com)), Norick R. Bowers<sup>2,3</sup>, Martin S. Banks<sup>2</sup>, Austin Roorda<sup>2</sup>; <sup>1</sup>CHNO des Quinze-Vingts, Inserm-DGOS CIC 1423, F-75012 Paris, <sup>2</sup>Herbert Wertheim School of Optometry and Vision



Science, University of California Berkeley, <sup>3</sup>Justus-Liebig-Universität Gießen, Germany

*Talk 6, 3:45 pm, 54.16*

### **Sinusoidal Smooth Pursuit After Childhood Hemispherectomy**

Maria Z. Chronos<sup>1,2</sup> ([mzchrone@andrew.cmu.edu](mailto:mzchrone@andrew.cmu.edu)), Shawn M. Willet<sup>2</sup>, Sophia Robert<sup>1</sup>, J. Patrick Mayo<sup>2</sup>, Marlene Behrmann<sup>2,1</sup>; <sup>1</sup>Carnegie Mellon University, <sup>2</sup>University of Pittsburgh

*Talk 7, 4:00 pm, 54.17*

### **The eyes as a window to internal fluctuations in global brain state**

Richard Johnston<sup>1,2,3</sup> ([richardjohnston@cmu.edu](mailto:richardjohnston@cmu.edu)), Matthew A. Smith<sup>1,2,3</sup>; <sup>1</sup>Department of Biomedical Engineering, Carnegie Mellon University, Pittsburgh, USA, <sup>2</sup>Carnegie Mellon Neuroscience Institute, Carnegie Mellon University, Pittsburgh, USA, <sup>3</sup>Center for the Neural Basis of Cognition, Carnegie Mellon University, Pittsburgh, USA

## **Scene Perception**

*Talk Session: Tuesday, May 23, 2023, 2:30 – 4:15 pm EDT, Talk Room 2*

*Moderator: Dirk B. Walther, University of Toronto*

*Talk 1, 2:30 pm, 54.21*

### **Feedback processing shapes the categorical organization of the ventral stream**

Yuanfang Zhao<sup>1</sup>, Simen Hagen<sup>1</sup>, Marius Peelen<sup>1</sup>; <sup>1</sup>Donders Institute for Brain, Cognition and Behavior

*Talk 2, 2:45 pm, 54.22*

### **The occipital place area (OPA) supports walking in 8-year-olds, not 5-year-olds**

Yaelan Jung<sup>1</sup> ([jung.yaelan@gmail.com](mailto:jung.yaelan@gmail.com)), Daniel D. Dilks; <sup>1</sup>Emory University

*Talk 3, 3:00 pm, 54.23*

### **Biased population coding of visual orientation in the human brain**

William J. Harrison<sup>1</sup> ([willjharri@gmail.com](mailto:willjharri@gmail.com)), Paul M. Bays<sup>2</sup>, Reuben Rideaux<sup>1</sup>; <sup>1</sup>The University of Queensland, <sup>2</sup>University of Cambridge

*Talk 4, 3:15 pm, 54.24*

### **Distinct early and late neural mechanisms regulate feature-specific sensory adaptation in the human visual system**

Reuben Rideaux<sup>1</sup> ([reuben.rideaux@gmail.com](mailto:reuben.rideaux@gmail.com)), Rebecca K West<sup>2</sup>, Dragan Rangelov<sup>1</sup>, Jason B Mettingley<sup>1,2</sup>; <sup>1</sup>Queensland Brain Institute, University of Queensland, <sup>2</sup>School of Psychology, University of Queensland

*Talk 5, 3:30 pm, 54.25*

### **Making memorability of scenes better or worse by manipulating their contour properties**

Seohee Han<sup>1</sup> ([seohee.han@mail.utoronto.ca](mailto:seohee.han@mail.utoronto.ca)), Morteza Rezanejad<sup>1</sup>, Dirk B. Walther<sup>1</sup>; <sup>1</sup>University of Toronto

*Talk 6, 3:45 pm, 54.26*

## **Object-based attention during scene perception elicits boundary contraction in memory**

Elizabeth H. Hall<sup>1,2</sup> ([ehhall@ucdavis.edu](mailto:ehhall@ucdavis.edu)), Joy J. Geng<sup>1,2</sup>; <sup>1</sup>University of California, Davis, <sup>2</sup>Center for Mind and Brain

*Talk 7, 4:00 pm, 54.27*

## **A retinotopic reference frame structures communication between visual and memory systems**

Adam Steel<sup>1</sup> ([adamdanielsteel@gmail.com](mailto:adamdanielsteel@gmail.com)), Brenda Garcia<sup>1</sup>, Edward Silson<sup>2</sup>, Caroline Robertson<sup>1</sup>; <sup>1</sup>Dartmouth College, <sup>2</sup>University of Edinburgh

# **Attention: Models, individual differences, reward, capture, shifting**

*Talk Session: Tuesday, May 23, 2023, 5:15 – 7:15 pm EDT, Talk Room 1*

*Moderator: Viola Stoermer, Dartmouth*

*Talk 1, 5:15 pm, 55.11*

## **Statistical Characterization of Attention Effects on the Contrast Tuning Functions of Neuronal Populations of a Convolutional Neural Network**

Sudhanshu Srivastava<sup>1</sup> ([sudhanshu@ucsb.edu](mailto:sudhanshu@ucsb.edu)), Miguel P. Eckstein<sup>1</sup>; <sup>1</sup>University of California, Santa Barbara

*Talk 2, 5:30 pm, 55.12*

## **How does cognitive arousal modulate visuocortical contrast response functions?**

Sam Ling<sup>1</sup> ([samling@bu.edu](mailto:samling@bu.edu)), Louis Vinke<sup>1,2</sup>, Joseph McGuire<sup>1</sup>, Jasmine Pan<sup>1</sup>; <sup>1</sup>Boston University, <sup>2</sup>Massachusetts General Hospital

*Talk 3, 5:45 pm, 55.13*

## **Spatial suppression transfers across eye position in retinotopic coordinates**

Seah Chang<sup>1</sup> ([chang.2127@osu.edu](mailto:chang.2127@osu.edu)), Julie D. Golomb<sup>1</sup>; <sup>1</sup>Department of Psychology, The Ohio State University

*Talk 4, 6:00 pm, 55.14*

## **Precise Memories and Imprecise Guidance: Why attention is guided towards colors that I'm certain I didn't see**

Jamal Williams<sup>1</sup> ([jrwilliams@ucsd.edu](mailto:jrwilliams@ucsd.edu)), Timothy Brady<sup>1</sup>, Viola Stoermer<sup>2</sup>; <sup>1</sup>University of California, San Diego, <sup>2</sup>Dartmouth College

*Talk 5, 6:15 pm, 55.15*

## **The ins and outs of attention – shifting within and between perception and working memory**

Daniela Gresch<sup>1</sup>, Sage E.P. Boettcher<sup>1</sup>, Freek van Ede<sup>2</sup>, Anna C. Nobre<sup>1</sup>; <sup>1</sup>University of Oxford, <sup>2</sup>Vrije Universiteit Amsterdam

*Talk 6, 6:30 pm, 55.16*

### **A thalamo-cortical blackboard model for coordinating visual mental routines**

Daniel Schmid<sup>1</sup> ([daniel-1.schmid@uni-ulm.de](mailto:daniel-1.schmid@uni-ulm.de)), Daniel A. Braun<sup>1</sup>, Heiko Neumann<sup>1</sup>; <sup>1</sup>Institute of Neural Information Processing, Ulm University

*Talk 7, 6:45 pm, 55.17*

### **Reward variance outweighs reward value in modulating capture of visual attention**

Mike Le Pelley<sup>1</sup> ([m.lepelley@unsw.edu.au](mailto:m.lepelley@unsw.edu.au)), Daniel Pearson<sup>1,2</sup>, Amy Chong<sup>1</sup>; <sup>1</sup>University of New South Wales, Sydney, Australia, <sup>2</sup>University of Sydney, Australia

*Talk 8, 7:00 pm, 55.18*

### **Contextual information triggers attentional selection: a dissociation between semantic priming and response compatibility effects**

Mor Sasi<sup>1</sup> ([mor.sasi1992@gmail.com](mailto:mor.sasi1992@gmail.com)), Noa Izhaki<sup>1</sup>, Nitzan Micher<sup>1</sup>, Dominique Lamy<sup>1,2</sup>; <sup>1</sup>School of Psychological Sciences, Tel Aviv University, <sup>2</sup>Sagol School of Neuroscience, Tel Aviv University

## **Visual Working Memory**

*Talk Session: Tuesday, May 23, 2023, 5:15 – 7:15 pm EDT, Talk Room 2*

*Moderator: David Alais, University of Sydney*

*Talk 1, 5:15 pm, 55.21*

### **Efficient Measurement of Dynamic Visual Working Memory**

Garry Kong<sup>1</sup> ([kong.garry@aoni.waseda.jp](mailto:kong.garry@aoni.waseda.jp)), Isabelle Frisken<sup>2</sup>, Gwenisha J. Liaw<sup>2</sup>, Robert Keys<sup>2</sup>, David Alais<sup>2</sup>; <sup>1</sup>Waseda University, <sup>2</sup>University of Sydney

*Talk 2, 5:30 pm, 55.22*

### **No Evidence for a Visual Testing Effect for Novel, Meaningless Objects**

Anna C. McCarter<sup>1</sup> ([acmccarter@umass.edu](mailto:acmccarter@umass.edu)), David E. Huber<sup>1</sup>, Rosemary A. Cowell<sup>1</sup>; <sup>1</sup>University of Massachusetts at Amherst

*Talk 3, 5:45 pm, 55.23*

### **Nature of the memory trace left by the previous trial in an interceptive task**

Esaú Sirius Ventura Pupo<sup>1</sup> ([esau.sirius@gmail.com](mailto:esau.sirius@gmail.com)), Raymundo Machado de Azevedo Neto<sup>2</sup>, André Mascioli Cravo<sup>1</sup>; <sup>1</sup>Federal University of ABC (UFABC), São Paulo, Brazil, <sup>2</sup>Brain Institute, Hospital Israelita Albert Einstein, São Paulo, Brazil

*Talk 4, 6:00 pm, 55.24*

### **Sequential neuronal spikes as units of cortical coding across visual perception and working memory**

Weizhen Xie<sup>1</sup> ([weizhen.xie@nih.gov](mailto:weizhen.xie@nih.gov)), Kareem Zaghloul; <sup>1</sup>National Institute of Neurological Disorders and Stroke, National Institutes of Health

*Talk 5, 6:15 pm, 55.25*

## **Parietal impact on visual working memory representation in occipito-temporal cortex**

Yaoda Xu<sup>1</sup> ([xucogneuro@gmail.com](mailto:xucogneuro@gmail.com)); <sup>1</sup>Yale University

*Talk 6, 6:30 pm, 55.26*

## **Action consequences guide visual working memory use**

Andre Sahakian<sup>1</sup> ([a.sahakian@uu.nl](mailto:a.sahakian@uu.nl)), Surya Gayet<sup>1</sup>, Chris Paffen<sup>1</sup>, Stefan Van der Stigchel<sup>1</sup>; <sup>1</sup>Utrecht University, the Netherlands

*Talk 7, 6:45 pm, 55.27*

## **A model of composing working memories from hierarchical representations acquired through visual learning**

Brad Wyble<sup>1</sup> ([bwyble@gmail.com](mailto:bwyble@gmail.com)), Ryan O'Donnell<sup>1</sup>, Shekoo Hedayati<sup>1</sup>; <sup>1</sup>Penn State University

*Talk 8, 7:00 pm, 55.28*

## **Individual variation in optimal encoding strategy in visual working memory**

Yin-ting Lin<sup>1</sup> ([lin.3913@osu.edu](mailto:lin.3913@osu.edu)), Andrew B. Leber<sup>1</sup>; <sup>1</sup>The Ohio State University

# **Perceptual Decision-Making and Confidence**

*Talk Session: Wednesday, May 24, 2023, 8:15 – 10:00 am EDT, Talk Room 1*

*Moderator: Doby Rahnev, Georgia Tech*

*Talk 1, 8:15 am, 61.11*

## **Reward and Response Accuracy Trade-offs in Visuomotor Decisions Under Uncertainty**

Jami Pekkanen<sup>1</sup> ([jami.pekkanen@helsinki.fi](mailto:jami.pekkanen@helsinki.fi)), Tero Hakala<sup>2</sup>, Samuel Tuhkanen<sup>1</sup>, Lauri Oksama<sup>3</sup>, Otto Lappi<sup>1</sup>;

<sup>1</sup>University of Helsinki, Finland, <sup>2</sup>National Defence University, Finland, <sup>3</sup>University of Turku, Finland

*Talk 2, 8:30 am, 61.12*

## **Expectations and cognitive control modulate history biases in perceptual decisions**

Gizay Ceylan<sup>1</sup>, David Pascucci<sup>1</sup>; <sup>1</sup>EPFL

*Talk 3, 8:45 am, 61.13*

## **Beyond the ideal observer: internal states of uncertainty modulate sequential biases in perceptual decisions**

Ayberk Ozkirlil<sup>1</sup> ([ayberk.ozkirlil@gmail.com](mailto:ayberk.ozkirlil@gmail.com)), David Pascucci<sup>1</sup>; <sup>1</sup>Laboratory of Psychophysics, Brain Mind Institute, School of Life Sciences, École Polytechnique Fédérale de Lausanne (EPFL), Switzerland

*Talk 4, 9:00 am, 61.14*

## **Confidence Determines the Strength of Visual Serial Dependence**

Geoff Gallagher<sup>1</sup> ([gg16048@bristol.ac.uk](mailto:gg16048@bristol.ac.uk)), Christopher Benton<sup>2</sup>; <sup>1</sup>University of Bristol

*Talk 5, 9:15 am, 61.15*

## **A common computational principle for decision-making with confidence, expectation**

## and reward

yunxuan zheng<sup>1</sup> ([yzheng447@gatech.edu](mailto:yzheng447@gatech.edu)), Kai Xue<sup>2</sup>, Medha Shekhar<sup>3</sup>, Dobromir Rahnev<sup>4</sup>; <sup>1</sup>School of Psychology, Georgia Institute of Technology, Atlanta, GA, US

*Talk 6, 9:30 am, 61.16*

## Population activity in sensory cortex informs confidence in a perceptual decision

Zoe Boundy-Singer<sup>1</sup> ([zoesinger@utexas.edu](mailto:zoesinger@utexas.edu)), Corey Ziemba<sup>1</sup>, Robbe Goris<sup>1</sup>; <sup>1</sup>Center for Perceptual Systems, UT Austin

*Talk 7, 9:45 am, 61.17*

## Effects of surrounding sensory evidence on central visual confidence

Alan L. F. Lee<sup>1</sup> ([alan.lf.lee@gmail.com](mailto:alan.lf.lee@gmail.com)), Jenny W. S. Chiu<sup>1</sup>, Jocelyn W. K. Lam<sup>1</sup>; <sup>1</sup>Lingnan University, Hong Kong

# Visual Search

*Talk Session: Wednesday, May 24, 2023, 8:15 – 10:00 am EDT, Talk Room 2*

*Moderator: Monica Castelhana, University British Columbia*

*Talk 1, 8:15 am, 61.21*

## Don't hide the instruction manual: A dynamic trade-off between using internal and external templates during visual search

Alex Hoogerbrugge<sup>1</sup>, Christoph Strauch<sup>1</sup>, Tanja Nijboer<sup>1</sup>, Stefan Van der Stigchel<sup>1</sup>; <sup>1</sup>Experimental Psychology, Helmholtz Institute, Utrecht University, The Netherlands

*Talk 2, 8:30 am, 61.22*

## Memory Compression Facilitates Search for Multiple Targets

Andrew Clement<sup>1</sup> ([andrew.clement@tamu.edu](mailto:andrew.clement@tamu.edu)), Brian Anderson<sup>1</sup>; <sup>1</sup>Texas A&M University

*Talk 3, 8:45 am, 61.23*

## Looking for details: Fine-grained visual search at foveal scale

Sanjana Kapisthalam<sup>1</sup> ([skapisth@ur.rochester.edu](mailto:skapisth@ur.rochester.edu)), Martina Poletti<sup>1</sup>; <sup>1</sup>University of Rochester, <sup>2</sup>Center for vision science at University of Rochester

*Talk 4, 9:00 am, 61.24*

## Alpha oscillations in early visual cortex support visual search through inhibition of neuronal excitability to Target and Distractor features

Katharina Duecker<sup>1</sup> ([katharina.duecker@gmail.com](mailto:katharina.duecker@gmail.com)), Kimron L Shapiro<sup>1</sup>, Simon Hanslmary<sup>2</sup>, Jeremy Wolfe<sup>3,4</sup>, Yali Pan<sup>1</sup>, Ole Jensen<sup>1</sup>; <sup>1</sup>Centre for Human Brain Health, School of Psychology, University of Birmingham, UK, <sup>2</sup>Centre for Cognitive Neuroimaging, School of Neuroscience and Psychology, University of Glasgow, UK, <sup>3</sup>Brigham and Women's Hospital, Boston, MA USA, <sup>4</sup>Harvard Medical School, Boston, Massachusetts, USA

*Talk 5, 9:15 am, 61.25*

## Rank and career level are inadequate measures of perceptual expertise in radiology

Robert G. Alexander<sup>1</sup> ([rgalexander.vision@gmail.com](mailto:rgalexander.vision@gmail.com)), Stephen Waite<sup>1</sup>, Shawn Lyo<sup>1</sup>, Ashwin Venkatakrisnan<sup>1</sup>, Arcadij Grigorian<sup>1</sup>, Stephen L. Macknik<sup>1</sup>, Susana Martinez-Conde<sup>1</sup>; <sup>1</sup>SUNY Downstate Health Sciences University, Brooklyn, NY, USA

*Talk 6, 9:30 am, 61.26*

### **Expectations Versus Reality: The Effect of Semantic Knowledge on Statistical Learning**

Laura Sikun Li<sup>1</sup> ([20sl101@queensu.ca](mailto:20sl101@queensu.ca)), Hannah Lum Smith<sup>1</sup>, Karolina Krzyś<sup>1</sup>, Carrick C. Williams<sup>2</sup>, Monica S. Castelhana<sup>1</sup>; <sup>1</sup>Queen's University, <sup>2</sup>California State University San Marcos

*Talk 7, 9:45 am, 61.27*

### **Stop pretending your trials are independent: Learn more from your data with asymptotic regression**

Alasdair Clarke<sup>1</sup> ([a.clarke@essex.ac.uk](mailto:a.clarke@essex.ac.uk)), Amelia Hunt<sup>2</sup>; <sup>1</sup>Department of Psychology, University of Essex, <sup>2</sup>School of Psychology, University of Aberdeen

## **Attention: Spatial, featural, temporal, divided**

*Talk Session: Wednesday, May 24, 2023, 10:45 am – 12:30 pm EDT, Talk Room 1*

*Moderator: Alex White, Barnard College*

*Talk 1, 10:45 am, 62.11*

### **Spatial attention effects dominate over temporal attention**

Helena Palmieri<sup>1</sup> ([hp808@nyu.edu](mailto:hp808@nyu.edu)), Marisa Carrasco<sup>1,2</sup>; <sup>1</sup>Department of Psychology, New York University, New York, NY, 10003, USA, <sup>2</sup>Center for Neural Science, New York University, New York, NY, 10003, USA

*Talk 2, 11:00 am, 62.12*

### **Expectation modulates the reflexive allocation of covert spatial attention**

Michael Grubb<sup>1</sup> ([michael.grubb@trincoll.edu](mailto:michael.grubb@trincoll.edu)), Nick Crotty<sup>1</sup>, Nicole Massa<sup>1</sup>, Dagoberto Tellez<sup>1</sup>, Alex White<sup>2</sup>; <sup>1</sup>Trinity College, <sup>2</sup>Barnard College

*Talk 3, 11:15 am, 62.13*

### **Feature-based attention has a spatial gradient**

Nika Adamian<sup>1</sup> ([nika.adamyan@gmail.com](mailto:nika.adamyan@gmail.com)), Søren Krogh Andersen<sup>1,2</sup>; <sup>1</sup>University of Aberdeen, <sup>2</sup>University of Southern Denmark

*Talk 4, 11:30 am, 62.14*

### **Attraction of population receptive fields is determined by precision of attention**

Sumiya A. Sheikh Abdirashid<sup>1,2,3</sup> ([s.abdirashid@spinozacentre.nl](mailto:s.abdirashid@spinozacentre.nl)), Tomas Knapen<sup>1,2,3</sup>, Serge O. Dumoulin<sup>1,2,3,4</sup>; <sup>1</sup>Spinoza Centre for Neuroimaging, Amsterdam, Netherlands, <sup>2</sup>Netherlands Institute for Neuroscience, Amsterdam, Netherlands, <sup>3</sup>Experimental and Applied Psychology, Vrije Universiteit, Amsterdam, Netherlands, <sup>4</sup>Experimental Psychology, Helmholtz Institute, Utrecht University, Utrecht, Netherlands

*Talk 5, 11:45 am, 62.15*

## **Dissociable neuronal substrates of visual feature attention and working memory in the primate brain**

Diego Mendoza-Halliday<sup>1</sup> ([diegomendoz@yahoo.com](mailto:diegomendoz@yahoo.com)), Haoran Xu<sup>1</sup>, Robert Desimone<sup>1</sup>; <sup>1</sup>Massachusetts Institute of Technology

*Talk 6, 12:00 pm, 62.16*

## **Simultaneous changes in acetylcholine (ACh) levels and neural activity during goal-directed behavior in non-human primates.**

Fabian Munoz Silva<sup>1,2</sup> ([fm2481@columbia.edu](mailto:fm2481@columbia.edu)), Maria Bompolaki<sup>3,4</sup>, Alex Dranovsky<sup>3,4</sup>, Vincent Ferrera<sup>1,2</sup>;

<sup>1</sup>Department of Neuroscience, Columbia University, <sup>2</sup>Zuckerman Mind Brain Behavior Institute, Columbia University, <sup>3</sup>Department of Psychiatry, Columbia University, <sup>4</sup>New York State Psychiatric Institute, New York

*Talk 7, 12:15 pm, 62.17*

## **The attentionally-modulated posterior parietal area V6A in macaques and humans**

Patrizia Fattori<sup>1</sup> ([patrizia.fattori@unibo.it](mailto:patrizia.fattori@unibo.it)), Marina De Vitis<sup>1</sup>, Matteo Filippini<sup>1</sup>, Kostas Hadjidimitrakis<sup>1</sup>, Claudio Galletti<sup>1</sup>; <sup>1</sup>University of Bologna, Italy

# **Face Perception: Neural mechanisms and models**

*Talk Session: Wednesday, May 24, 2023, 10:45 am – 12:30 pm EDT, Talk Room 2*

*Moderator: Richard Krauzlis, NIH*

*Talk 1, 10:45 am, 62.21*

## **Reconstructing the neurodynamics of face perception during real world vision in humans using intracranial EEG recordings**

Arish Alreja<sup>1</sup> ([aalreja@andrew.cmu.edu](mailto:aalreja@andrew.cmu.edu)), Michael J. Ward<sup>2</sup>, Jhair A. Colan<sup>3</sup>, Qianli Ma<sup>1</sup>, R. Mark Richardson<sup>4</sup>, Louis-Phillipe Morency<sup>1</sup>, Avniel S. Ghuman<sup>3</sup>; <sup>1</sup>Carnegie Mellon University, <sup>2</sup>University of California, Los Angeles, <sup>3</sup>University of Pittsburgh, <sup>4</sup>Harvard University and Massachusetts General Hospital

*Talk 2, 11:00 am, 62.22*

## **Rapid face preference during visual object processing by the primate superior colliculus**

Gongchen Yu<sup>1</sup> ([yugongchen1990@gmail.com](mailto:yugongchen1990@gmail.com)), Leor Katz<sup>1</sup>, Christian Quaia<sup>1</sup>, Adam Messinger<sup>1</sup>, Richard Krauzlis<sup>1</sup>; <sup>1</sup>Laboratory of Sensorimotor Research, National Eye Institute, NIH

*Talk 3, 11:15 am, 62.23*

## **Comparing iEEG responses and deep networks with Bayesian statistics challenges the view that lateral face-selective regions are specialized for facial expression recognition over identity recognition**

Emily Schwartz<sup>1</sup> ([schwarex@bc.edu](mailto:schwarex@bc.edu)), Arish Alreja<sup>2,3,4</sup>, R. Mark Richardson<sup>5,6</sup>, Avniel Ghuman<sup>3,4</sup>, Stefano Anzellotti<sup>1</sup>; <sup>1</sup>Boston College, <sup>2</sup>Carnegie Mellon University, <sup>3</sup>University of Pittsburgh, <sup>4</sup>University of Pittsburgh Medical Center, <sup>5</sup>Massachusetts General Hospital, <sup>6</sup>Harvard Medical School

*Talk 4, 11:30 am, 62.24*

## **Reversed contributions of visual and semantic information to the representations of familiar faces in perception and memory**

Adva Shoham<sup>1</sup> ([advashoham@mail.tau.ac.il](mailto:advashoham@mail.tau.ac.il)), Idan Daniel Grosbard<sup>1</sup>, Yuval Navon<sup>1</sup>, Galit Yovel<sup>1</sup>; <sup>1</sup>Tel Aviv University

*Talk 5, 11:45 am, 62.25*

## **A NARROW BAND OF IMAGE DIMENSIONS IS CRITICAL FOR THE LEARNING AND RECOGNITION OF FACE IDENTITY**

Dan Rogers<sup>1</sup> ([dr737@york.ac.uk](mailto:dr737@york.ac.uk)), Tim Andrews<sup>1</sup>, Mila Mileva<sup>2</sup>; <sup>1</sup>The University of York, <sup>2</sup>The University of Plymouth

*Talk 6, 12:00 pm, 62.26*

## **A familiar face and person processing area in the human temporal pole**

Ben Deen<sup>1,2</sup> ([benjamin.deen@gmail.com](mailto:benjamin.deen@gmail.com)), Winrich A Freiwald<sup>1</sup>; <sup>1</sup>Rockefeller University, <sup>2</sup>Tulane University

*Talk 7, 12:15 pm, 62.27*

## **Thinking outside of the face network: face recognition deficits are related to reduced connectivity between high-level face areas and non-face-selective sensory, memory, and social processing regions**

Alison Campbell<sup>1,2</sup> ([alison.candice.campbell@gmail.com](mailto:alison.candice.campbell@gmail.com)), Xian Li<sup>3</sup>, Michael Esterman<sup>1,2,4</sup>, Joseph DeGutis<sup>1,5</sup>;  
<sup>1</sup>Boston Attention and Learning Laboratory, VA Boston Healthcare System, Boston, MA, <sup>2</sup>Department of Psychiatry, Boston University School of Medicine, Boston MA, <sup>3</sup>Department of Psychological and Brain Sciences, Johns Hopkins University, Baltimore, MD, <sup>4</sup>National Center for PTSD, VA Boston Healthcare System, Boston, MA, <sup>5</sup>Department of Psychiatry, Harvard Medical School, Boston MA



# Poster Sessions

## Saturday Morning Posters, May 20, 8:30 am

Plasticity and Learning: Clinical applications  
Binocular Vision: Clinical  
Spatial Vision: Perceptual properties in health and disease  
Attention: Temporal, divided  
Attention: Endogenous, exogenous  
Visual Search: Features, models, neural  
Aging

### Pavilion

Motion: Models, neural mechanisms  
Temporal Processing: Duration, timing perception  
Perception & Action: Reaching, aiming, interception  
Perception and Action: Navigation and flow in virtual environments  
Multisensory Processing: Visuo-haptic  
Visual Memory: Long term memory

## Saturday Afternoon Posters, May 20, 2:45 pm

Color, Light and Materials: Lightness, brightness  
Color, Light and Materials: Cognition  
Attention: Top-down, reward  
Face Perception: Individual differences  
Face Perception: Emotion  
Undergraduate Just-In-Time 1

### Pavilion

Attention: Affect, threat  
Eye Movements: Perception, remapping  
Object Recognition: Reading  
Binocular Vision: Disparity processing  
3D: Cues and integration  
Perception and Action  
Spatial Vision: Crowding and eccentricity

## Sunday Morning Posters, May 21, 8:30 am

Attention: Spatial  
Face Perception: Experience, learning, and expertise  
Visual Search: Eye movements, attention, individual differences  
Attention: Cueing, inattention  
Attention: Objects

### Pavilion

Perceptual Decision-Making  
Color, Light and Materials: Surfaces, materials, constancy  
Object Recognition: Neural organization and representations  
Object Recognition: Visual preference, features and objects  
Eye Movements: Saccades and pursuit  
Spatial Vision: Neural mechanisms

## Sunday Afternoon Posters, May 21, 2:45 pm

Development: Neural mechanisms and eye movements  
Eye Movements: Visual Impairment  
Motion: Local, in depth  
Attention: Individual differences  
Visual Working Memory: Interference  
Visual Working Memory: Attention, load and capacity  
Perceptual Decision-Making: Confidence

### Pavilion

Plasticity and Learning: Statistical learning  
Plasticity and Learning: Tasks, models  
Binocular Vision: Integration and rivalry  
3D: Shape  
Perception and Action: Navigation and flow  
Face Perception: Insights from artificial neural networks  
Perceptual Organization: Shape, figure/ground, occlusion

## Monday Morning Posters, May 22, 8:30 am

Object Recognition: Models  
Scene Perception: Spatiotemporal factors  
Attention: Temporal, templates, memory  
Attention: Features  
Image Preference, Statistics and Aesthetics  
Undergraduate Just-In-Time 2

### Pavilion

Eye Movements: Individual differences, novel measurement  
Visual Working Memory: Serial dependence  
Visual Working Memory: Neural mechanisms  
Visual Working Memory: Space, features, objects  
Multisensory Processing: Audio-visual, visuo-vestibular

## Tuesday Morning Posters, May 23, 8:30 am

Color, Light, and Materials: Neural mechanisms, models  
Perceptual Organization: Segmentation, grouping, similarity  
Face Perception: Models  
Face Perception: Neural mechanisms  
Scene Perception: Categorization, memory, cognition  
Scene Perception: Neural mechanisms  
Visual Search: Scenes and other natural environments

### Pavilion

Development: Perception and cognition  
Spatial Vision: Models and image statistics  
Motion: Higher-order  
Attention: Bottom-up  
Eye Movements: Complex tasks  
Visual Memory: Buildup, imagery, ensembles

## Tuesday Afternoon Posters, May 23, 2:45 pm

Plasticity and Learning: Cortex  
Plasticity and Learning: Sensorimotor  
Perception & Action: Grasping  
3D: Spatial layout and VR/AR  
Eye Movements: Scenes, VR, 3D  
Motion: Optic flow  
Perceptual Organization: Contour integration, common fate

### Pavilion

Object Recognition: Categories  
Object Recognition: Neural mechanisms  
Face Perception: Wholes, parts, configurations, and features  
Face Perception: Development and disorders  
Face Perception: Social cognition

## Wednesday Morning Posters, May 24, 8:30 am

Temporal Processing: Neural mechanisms and models  
Object Recognition: Features and parts  
Visual Memory: Capacity, encoding, retrieval  
Spatial Vision: Texture  
Visual Search: Attention  
Visual Search: Strategies, efficiencies

### Pavilion

Perception and Action: Perception of Human Actions and Bodies  
Eye Movements: Fixation  
Eye Movements: Attention, cognition, neural processes  
Perceptual Organization: Symmetry, preference, ensembles  
Scene Perception: Natural image statistics  
Scene Perception: Models  
Scene Perception: Virtual environments

# Saturday Morning Posters in Banyan Breezeway

## Plasticity and Learning: Clinical applications

### 23.301 Reading styles modulate perceptual roles of the hands in bimanual braille reading

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Santani Teng<sup>1</sup>, Manfred Mackeben<sup>1</sup>; <sup>1</sup>Smith-Kettlewell Eye Research Institute

### 23.302 Preserved blind-field visual abilities are most prevalent very early after stroke-induced V1 damage

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Berkeley Fahrenthold<sup>1</sup> ([berkeley\\_fahrenthold@urmc.rochester.edu](mailto:berkeley_fahrenthold@urmc.rochester.edu)), Matthew Cavanaugh<sup>1</sup>, Jingyi Yang<sup>1</sup>, Bryan Redmond<sup>1</sup>, Krystal Huxlin<sup>1</sup>; <sup>1</sup>University of Rochester

### 23.303 Neural and behavioral correlates of evidence accumulation in human click-based echolocation

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Haydee Garcia-Lazaro<sup>1</sup> ([haydee@ski.org](mailto:haydee@ski.org)), Santani Teng<sup>1</sup>; <sup>1</sup>The Smith-Kettlewell Eye Research Institute

### 23.304 The Impact of Vision Restoration on Visual Cortical Structure

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Noelle Stiles<sup>1</sup> ([nstiles@usc.edu](mailto:nstiles@usc.edu)), Jeiran Choupan<sup>2</sup>, Hossein Ameri<sup>1</sup>, Vivek Patel<sup>3</sup>, Yonggang Shi<sup>2</sup>; <sup>1</sup>Department of Ophthalmology, University of Southern California, 1450 San Pablo Street, Los Angeles, CA, 90033, USA, <sup>2</sup>Stevens Neuroimaging and Informatics Institute, University of Southern California, 2025 Zonal Avenue, Los Angeles, CA, 90033, USA, <sup>3</sup>Department of Ophthalmology, University of California, Irvine, 850 Health Sciences Road, Irvine, CA, 92697, USA

### 23.305 Functional and structural adaptations to lifelong lack of cone input and its implications for gene therapy outcomes

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Roni Maimon-Mor<sup>1,2</sup> ([r.maimon@ucl.ac.uk](mailto:r.maimon@ucl.ac.uk)), Mahtab Farahbakhsh<sup>1,2</sup>, Elaine Anderson<sup>1,3,4</sup>, Andy Rider<sup>1</sup>, John Greenwood<sup>2</sup>, Mohamed Katta<sup>1,5</sup>, Pete Jones<sup>1,6</sup>, Samuel Schwarzkopf<sup>2,7</sup>, Geraint Rees<sup>3,4</sup>, Michel Michaelides<sup>1,5</sup>, Tessa Dekker<sup>1,2</sup>; <sup>1</sup>UCL Institute of Ophthalmology, University College London, London EC1V 9EL, UK, <sup>2</sup>Experimental Psychology, University College London, London WC1H 0AP, UK, <sup>3</sup>UCL Institute of Cognitive Neuroscience, University College London, London WC1N 3AZ, UK, <sup>4</sup>The Wellcome Centre for Human Neuroimaging, University College London, London WC1N 3AR, UK, <sup>5</sup>Moorfields Eye Hospital, London EC1V 2PD, UK, <sup>6</sup>Division of Optometry and Visual Sciences; School of Health Sciences; City, University of London, London EC1V 0HB, UK, <sup>7</sup>School of Optometry and Vision Science, University of Auckland, Auckland 1023, New Zealand

### 23.306 Training perceptual-cognitive abilities improves simulated driving performance

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Jesse Michaels<sup>1</sup> ([jesse.michaels@umontreal.ca](mailto:jesse.michaels@umontreal.ca)), Romain Chaumillon<sup>1</sup>, Sergio Mejia-Romero<sup>1</sup>, Delphine Bernardin<sup>1,2,3</sup>, Jocelyn Faubert<sup>1</sup>; <sup>1</sup>Faubert Laboratory, School of Optometry, Université de Montréal, Montréal, Quebec, Canada, <sup>2</sup>Essilor International, Research and Development Department, Paris, France, <sup>3</sup>Essilor Canada, Saint-Laurent, Canada

### **23.307 Mesopic reading is further exacerbated by glaucomatous damage**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Traci-Lin Goddin<sup>1</sup>, David Friedman<sup>2</sup>, Cynthia Owsley<sup>3</sup>, MiYoung Kwon<sup>1</sup>; <sup>1</sup>Department of Psychology, Northeastern University, Boston, MA, <sup>2</sup>Massachusetts Eye and Ear, Harvard Medical School, Boston, MA, <sup>3</sup>Department of Ophthalmology and Visual Sciences, University of Alabama at Birmingham, Birmingham, AL

### **23.308 Evaluating the performance of Bayesian adaptive qReading in low vision**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Deyue Yu<sup>1</sup> ([deyueyu@gmail.com](mailto:deyueyu@gmail.com)), Zhong-Lin Lu<sup>2,3</sup>; <sup>1</sup>Ohio State University, <sup>2</sup>NYU Shanghai, <sup>3</sup>New York University, New York

### **23.309 Personalized Spatial Remapping of Text Improves Word Reading in the Presence of Simulated Central Field Loss**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Colin S. Flowers<sup>1</sup> ([flowe186@umn.edu](mailto:flowe186@umn.edu)), Arda Fidanci<sup>1</sup>, Chasity Foster<sup>2</sup>, Gordon E. Legge<sup>1</sup>, Stephen Engel<sup>1</sup>; <sup>1</sup>University of Minnesota Twin Cities, <sup>2</sup>Iowa State University

### **23.310 Visual snow is affected by contrast adaptation**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Samantha Montoya<sup>1</sup> ([monto112@umn.edu](mailto:monto112@umn.edu)), Carter Mulder<sup>1</sup>, Michael Lee<sup>1</sup>, Michael-Paul Schallmo<sup>1</sup>, Stephen Engel<sup>1</sup>; <sup>1</sup>University of Minnesota

### **23.312 The Impact of Sub-Foveal Scotomas on Visual Perception and Fine Oculomotor Behavior**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Ashley M. Clark<sup>1</sup> ([aclark43@ur.rochester.edu](mailto:aclark43@ur.rochester.edu)), Benjamin Moon<sup>1</sup>, Samantha K. Jenks<sup>1</sup>, Sanjana Kapisthalam<sup>1</sup>, Martina Poletti<sup>1</sup>; <sup>1</sup>University of Rochester

## **Binocular Vision: Clinical**

### **23.313 Behavioral and EEG Measures of Binocular Rivalry in People with Schizophrenia**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Kamar S. Abdullahi<sup>1</sup> ([abdul447@umn.edu](mailto:abdul447@umn.edu)), Samantha A. Montoya<sup>1</sup>, Kyle W. Killebrew<sup>1</sup>, Hannah R. Moser<sup>1</sup>, Scott R. Sponheim<sup>1,2</sup>, Michael-Paul Schallmo<sup>1</sup>; <sup>1</sup>University of Minnesota, <sup>2</sup>Minneapolis VA Medical Center

### **23.314 Glaucomatous neurodegeneration spares the cortical mechanism underlying binocular disparity integration across the visual field**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Guido Maiello<sup>1</sup> ([guido\\_maiello@yahoo.it](mailto:guido_maiello@yahoo.it)), MiYoung Kwon<sup>2</sup>; <sup>1</sup>Justus Liebig University Giessen, <sup>2</sup>Northeastern University

### **23.315 Evaluation of motion perception and binocular vision following dichoptic treatment for amblyopia**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Akosua K. Asare<sup>1</sup>, Cindy Ho<sup>2</sup>, Hee Yeon Im<sup>1</sup>, Deborah Giaschi<sup>1</sup>; <sup>1</sup>University of British Columbia, Vancouver, Canada, <sup>2</sup>Mount Pleasant Optometry Centre, Vancouver, Canada

### **23.316 Testing the effect of dichoptic surround masking in amblyopic vision**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Rinku Sarkar<sup>1</sup>, Frederick A.A. Kingdom<sup>1</sup>, Alexandre Reynaud<sup>1</sup>; <sup>1</sup>Department of Ophthalmology & Visual Sciences, McGill University

### **23.317 Contrast sensitivity channels in amblyopia: a meta-factor-analysis**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Alexandre Reynaud<sup>1</sup> ([alexandre.reynaud@mail.mcgill.ca](mailto:alexandre.reynaud@mail.mcgill.ca)), Seung Hyun Min<sup>2</sup>; <sup>1</sup>Department of Ophthalmology and Visual Sciences, McGill University, Montreal, Canada, <sup>2</sup>School of Ophthalmology and Optometry, Affiliated Eye Hospital, State Key Laboratory of Ophthalmology, Optometry and Vision Science, Wenzhou Medical University, Wenzhou, China

### **23.318 Nonparametric Bayesian Estimation of Contrast Sensitivity Functions**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Dennis Barbour<sup>1</sup> ([dbarbour@wustl.edu](mailto:dbarbour@wustl.edu)), Dom Marticorena<sup>1</sup>, Shohaib Shaffiey<sup>1</sup>, Quinn Wai Wong<sup>1</sup>, Ken Wilbur<sup>1</sup>, Samyukta Jayakumar<sup>2</sup>, Pinakin Davey<sup>3</sup>, Jake Gardner<sup>4</sup>, Aaron Seitz<sup>2</sup>; <sup>1</sup>Washington University in St. Louis, <sup>2</sup>University of California, Riverside, <sup>3</sup>Western University of Health Sciences, <sup>4</sup>University of Pennsylvania

### **23.319 Developing a novel dichoptic reading application for the treatment of amblyopia**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Nicole A. Dranitsaris<sup>1</sup> ([nicoledranitsaris16@gmail.com](mailto:nicoledranitsaris16@gmail.com)), Ken Chong<sup>1</sup>, Robert F. Hess<sup>1</sup>, Alexandre Reynaud<sup>1</sup>; <sup>1</sup>McGill Vision Research, Department of Ophthalmology and Visual Sciences, McGill University

### **23.320 Bringing continuous target-tracking to the clinic: Steps toward developing new tools for assessing visual dysfunction**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Stephanie M. Shields<sup>1</sup> ([smshields@utexas.edu](mailto:smshields@utexas.edu)), Sabeen Toranian<sup>1</sup>, Peter V. Sguigna<sup>2</sup>, Ethan Meltzer<sup>3</sup>, Lawrence K. Cormack<sup>1</sup>; <sup>1</sup>The University of Texas at Austin, <sup>2</sup>The University of Texas Southwestern Medical Center, <sup>3</sup>Dell Medical School at The University of Texas at Austin

### **23.321 tCFS: A new 'CFS tracking' paradigm reveals uniform suppression depth regardless of target complexity or salience**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Jacob Coorey<sup>1</sup>, David Alais<sup>1</sup>, Randolph Blake<sup>2</sup>, Matthew Davidson<sup>1</sup>; <sup>1</sup>The University of Sydney, <sup>2</sup>Vanderbilt

University

### **23.322 Digital Stereo Test (DST): Static stereopsis assessment in simulated and real depth-deficit patients**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Kritika Lohia<sup>1</sup> ([kritika.lohia@ee.iitd.ac.in](mailto:kritika.lohia@ee.iitd.ac.in)), Rijul Saurabh Soans<sup>1,2</sup>, Dharam Raj<sup>3</sup>, Rohit Saxena<sup>3</sup>, Tapan Kumar Gandhi<sup>1</sup>; <sup>1</sup>Department of Electrical Engineering, Indian Institute of Technology-Delhi, New Delhi, India, <sup>2</sup>Laboratory of Experimental Ophthalmology, University Medical Center Groningen, University of Groningen, Groningen, The Netherlands, <sup>3</sup>Dr. Rajendra Prasad Centre for Ophthalmic Sciences, All India Institute of Medical Sciences-Delhi, New Delhi, India

### **23.323 Validation of Angular Indication Measurement (AIM) Stereoacuity**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Sonisha Neupane<sup>1</sup> ([s.neupane@northeastern.edu](mailto:s.neupane@northeastern.edu)), Jan Skerswetat<sup>1</sup>, Peter J. Bex<sup>1</sup>; <sup>1</sup>Northeastern University

### **23.324 Refractive Error measured with AIM (Angular Indication Measurement) Visual Acuity**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Jingyi He<sup>1</sup> ([j.he@northeastern.edu](mailto:j.he@northeastern.edu)), Jay Bijesh Shah<sup>1</sup>, Jan Skerswetat<sup>1</sup>, Peter J. Bex<sup>1</sup>; <sup>1</sup>Northeastern University, USA

## **Spatial Vision: Perceptual properties in health and disease**

### **23.325 Behavioral and EEG measures of contrast surround suppression mechanisms in people with schizophrenia**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Hannah R. Moser<sup>1</sup>, Kamar S. Abdullahi<sup>1</sup>, Amaavi Miriyagalla<sup>1</sup>, Samantha A. Montoya<sup>1</sup>, Kyle W. Killebrew<sup>1</sup>, Scott R. Sponheim<sup>2,1</sup>, Michael-Paul Schallmo<sup>1</sup>; <sup>1</sup>University of Minnesota, <sup>2</sup>Minneapolis VA Medical Center

### **23.326 Functional Dysconnectivity of the Secondary Visual Network in Schizophrenia**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Brian Keane<sup>1</sup> ([brian\\_keane@urmc.rochester.edu](mailto:brian_keane@urmc.rochester.edu)), Luke Hearne<sup>2</sup>, Yonatan Abrham<sup>1</sup>, Deanna Barch<sup>3</sup>, Michael Cole<sup>2</sup>, Bart Krekelberg<sup>2</sup>, Steven Silverstein<sup>1</sup>; <sup>1</sup>University of Rochester, <sup>2</sup>Rutgers University, Newark, <sup>3</sup>Washington University in St. Louis

### **23.327 Further examination of the pulsed- and steady-pedestal paradigms under hypothetical parvocellular- and magnocellular-biased conditions**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Jaeseon Song<sup>1</sup> ([jaeseon.song@uga.edu](mailto:jaeseon.song@uga.edu)), Bruno Breitmeyer<sup>2</sup>, James Brown<sup>1</sup>; <sup>1</sup>University of Georgia, <sup>2</sup>University of Houston

### **23.328 Discovery of sharper orientation-tuned surround suppression for oblique than cardinal orientations provides support for a multi-stage model of normalization**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Hui-Yuan Miao<sup>1</sup> ([huiyuan.miao@vanderbilt.edu](mailto:huiyuan.miao@vanderbilt.edu)), David Coggan<sup>1</sup>, Frank Tong<sup>1,2</sup>; <sup>1</sup>Department of Psychology, Vanderbilt University, <sup>2</sup>Vanderbilt Vision Research Center

### **23.329 Radial bias alters perceived motion direction**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Melisa Menciloglu<sup>1</sup> ([melisa\\_menciloglu@brown.edu](mailto:melisa_menciloglu@brown.edu)), Ken Nakayama<sup>2</sup>, Joo-Hyun Song<sup>1</sup>; <sup>1</sup>Brown University, <sup>2</sup>University of California, Berkeley

### **23.330 Contextual Modulation of Sensory Encoding in the Tilt Illusion**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Ling-Qi Zhang<sup>1</sup> ([zlqzcc@gmail.com](mailto:zlqzcc@gmail.com)), Alan A. Stocker<sup>1</sup>; <sup>1</sup>University of Pennsylvania

### **23.331 Enhanced Luminance Improves Salience of Objects if it also Enhances Contrast**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Andrew Freedman<sup>1</sup> ([freed055@umn.edu](mailto:freed055@umn.edu)), Gordon Legge<sup>1</sup>; <sup>1</sup>University of Minnesota

## **Attention: Temporal, divided**

### **23.332 Voluntary temporal attention enhances sensory representations**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Jiating Zhu<sup>1</sup> ([jtszhu@bu.edu](mailto:jtszhu@bu.edu)), Karen Tian<sup>1,2</sup>, Marisa Carrasco<sup>2</sup>, Rachel Denison<sup>1,2</sup>; <sup>1</sup>Boston University, <sup>2</sup>New York University

### **23.333 Neural correlates of inducing fatigue with a sustained attention task**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Simon Hanzal<sup>1</sup> ([s.hanzal.1@research.gla.ac.uk](mailto:s.hanzal.1@research.gla.ac.uk)), Gemma Learmonth<sup>1</sup>, Gregor Thut<sup>1</sup>, Monika Harvey<sup>1</sup>; <sup>1</sup>University of Glasgow

### **23.334 Attention and expectation jointly modulate the temporal dynamics of visual processing**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Nicholas Crotty<sup>1</sup> ([ncrotty@trincoll.edu](mailto:ncrotty@trincoll.edu)), Nicole Massa<sup>1</sup>, Dagoberto Tellez<sup>1</sup>, Alex White<sup>2</sup>, Michael Grubb<sup>1</sup>; <sup>1</sup>Trinity College, <sup>2</sup>Barnard College

### **23.335 Comparing auditory and visual temporal attention**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Juneau Wang<sup>1</sup> ([juneauw@bu.edu](mailto:juneauw@bu.edu)), Christopher Conroy<sup>2</sup>, Rachel Denison<sup>1</sup>; <sup>1</sup>Boston University, <sup>2</sup>SUNY College of Optometry

### **23.336 Endogenous temporal attention benefits performance even under temporal uncertainty**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Aysun Duyar<sup>1</sup> ([aysun@nyu.edu](mailto:aysun@nyu.edu)), Shiyang Ren<sup>1</sup>, Marisa Carrasco<sup>1</sup>; <sup>1</sup>New York University

### **23.337 Multitasking without task switching**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Jumi Lee<sup>1</sup> ([heiheidi245@gmail.com](mailto:heiheidi245@gmail.com)), Oakyoon Cha<sup>1</sup>; <sup>1</sup>Sungshin Women's University

### **23.338 Effect of temporal interruptions on sequential sensory integration**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Mengting Fang<sup>1</sup> ([mtfang@sas.upenn.edu](mailto:mtfang@sas.upenn.edu)), Jiang Mao<sup>1</sup>, Tobias Donner<sup>2</sup>, Alan Stocker<sup>1</sup>; <sup>1</sup>University of Pennsylvania, <sup>2</sup>University Medical Center Hamburg-Eppendorf

### **23.339 Distributed and focused visuo-spatial attention deficits in children with dyslexia**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Simone Gori<sup>1</sup> ([simone.gori@unibg.it](mailto:simone.gori@unibg.it)), Sandro Franceschini<sup>2,3</sup>, Sara Bertoni<sup>1,2</sup>, Giovanna Puccio<sup>2</sup>, Cristiano Termine<sup>3</sup>, Andrea Facchetti<sup>2</sup>; <sup>1</sup>University of Bergamo, <sup>2</sup>University of Padua, <sup>3</sup>University of Insubria

### **23.340 Multifocal attention within a single hemifield results in broad tuning of attention across relevant and irrelevant locations.**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Mart Ozkan<sup>1</sup> ([mert.ozkan.gr@dartmouth.edu](mailto:mert.ozkan.gr@dartmouth.edu)), Viola Stoermer<sup>1</sup>; <sup>1</sup>Dartmouth College

### **23.341 No evidence that attentionally demanding dual tasks disrupt visual processing capacity in a gamified orientation-averaging task**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Wing Hong Fu<sup>1</sup> ([w.fu@westernsydney.edu.au](mailto:w.fu@westernsydney.edu.au)), Gabrielle Weidemann<sup>1</sup>, Tijn Grootswagers<sup>1</sup>, Larissa Cahill<sup>2</sup>, John Cass<sup>1</sup>; <sup>1</sup>The MARCS Institute for Brain, Behaviour and Development, Western Sydney University, <sup>2</sup>Defence Sciences Technology Group

### **23.342 Diversity of items within attentional window explains "cost-free" diversity judgments**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Suyeon Kim<sup>1</sup> ([eoddysl@naver.com](mailto:eoddysl@naver.com)), Oakyoon Cha<sup>1</sup>; <sup>1</sup>Sungshin Women's University

### **23.343 Useful field of view performance in healthy aging is linked to visuo-perceptive processes**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Romain Hassan Omar<sup>1</sup> ([romain.hassan.omar@umontreal.ca](mailto:romain.hassan.omar@umontreal.ca)), Adunni Garber<sup>2</sup>, Geneviève Rodrigue<sup>3</sup>, Aarlenne Khan<sup>4</sup>; <sup>1</sup>University of Montreal

### **23.344 Gender comparison of perceptual-cognitive learning in young athletes.**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Isabelle Legault<sup>1</sup> ([isabelle.legault.3@gmail.com](mailto:isabelle.legault.3@gmail.com)), Jocelyn Faubert<sup>2</sup>; <sup>1</sup>Collège Lionel Goulx, <sup>2</sup>Faubertlab, Université de Montreal

## **Attention: Endogenous, exogenous**



### **23.345 Alteration of endogenous visuospatial attention orientation during 10 Hz or 40 Hz transcranial alternating current stimulation to right temporoparietal junction and occipital visual areas**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Ashley Mendoza<sup>1</sup> ([anm190@scarletmail.rutgers.edu](mailto:anm190@scarletmail.rutgers.edu)), Ashley Yttredahl<sup>1</sup>, Yinghua Liu<sup>1</sup>, David Smith<sup>2</sup>, Bart Krekelberg<sup>1</sup>; <sup>1</sup>Rutgers University - Newark, <sup>2</sup>Temple University

### **23.346 Resolution of Exogenous Shifts of Attention is Impacted by Peripheral Stimuli Eccentricity**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Chris Reynolds<sup>1</sup> ([reynol89@uwm.edu](mailto:reynol89@uwm.edu)), Adam Greenberg<sup>2,3</sup>; <sup>1</sup>University of Wisconsin Milwaukee, <sup>2</sup>Medical College of Wisconsin, <sup>3</sup>Marquette University

### **23.347 Task-irrelevant abrupt onsets disrupt value-related information processing**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Carly Chak<sup>1</sup>, Emily Machniak<sup>1</sup>, Barry Giesbrecht<sup>1</sup>; <sup>1</sup>University of California, Santa Barbara

### **23.348 Presaccadic attention sharpens visual acuity around the visual field**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Yuna Kwak<sup>1</sup> ([yuna.kwak@nyu.edu](mailto:yuna.kwak@nyu.edu)), Nina Hanning<sup>1,2</sup>, Marisa Carrasco<sup>1</sup>; <sup>1</sup>New York University, <sup>2</sup>Humboldt-Universität zu Berlin

### **23.349 The effects of high-resolution exogenous attention on different spatial frequencies in the fovea**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Yue Zhang<sup>1</sup> ([yue.zhang604@gmail.com](mailto:yue.zhang604@gmail.com)), Martina Poletti<sup>1</sup>; <sup>1</sup>University of Rochester

### **23.350 Adaptation modulates the effect of covert exogenous attention in early visual cortex – A TMS study**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Hsing-Hao Lee<sup>1</sup> ([hsinghaolee@nyu.edu](mailto:hsinghaolee@nyu.edu)), Antonio Fernández<sup>1</sup>, Marisa Carrasco<sup>1</sup>; <sup>1</sup>New York University

### **23.351 Distinct modulation of FEF during orienting and reorienting of exogenous and endogenous attention**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Elena Younhye Ock<sup>1</sup> ([elena.ock@nih.gov](mailto:elena.ock@nih.gov)), Cassie Joynes<sup>2</sup>, Tina T. Liu<sup>1</sup>, Elisha P. Merriam<sup>1</sup>; <sup>1</sup>Laboratory of Brain and Cognition, National Institute of Mental Health, NIH, Bethesda, MD, USA, <sup>2</sup>Lab of Behavioral Neuroscience, National Institute on Aging, NIH, Bethesda, MD

### **23.352 Exogenous spatial attention shift induced by up and down vection direction**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Xuanru Guo<sup>1</sup> ([guoxuanru1101@gmail.com](mailto:guoxuanru1101@gmail.com)), Takeharu Seno<sup>1</sup>, Stephen Palmisano<sup>2</sup>; <sup>1</sup>Faculty of Design, Kyushu University, <sup>2</sup>School of Psychology, University of Wollongong

## Visual Search: Features, models, neural

### 23.353 Using Probe Trials Reduces the Low-Prevalence Effect but Target Generalization is Limited

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Mark W. Becker<sup>1</sup> ([becker54@msu.edu](mailto:becker54@msu.edu)), Andrew Rodriguez<sup>1</sup>; <sup>1</sup>Michigan State University

### 23.354 Differences in similarity effects across target categories

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Anatolii Evdokimov<sup>1</sup>, Arryn Robbins<sup>1</sup>; <sup>1</sup>University of Richmond

### 23.355 Incidental capture from working memory depends on remembered feature dimension

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Daniel Thayer<sup>1</sup> ([danielthayer@ucsb.edu](mailto:danielthayer@ucsb.edu)), Thomas Sprague<sup>1</sup>; <sup>1</sup>University of California, Santa Barbara

### 23.356 Computational modeling of 3D team foraging to understand human behaviour and cognition

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Anna Hughes<sup>1</sup> ([anna.hughes@essex.ac.uk](mailto:anna.hughes@essex.ac.uk)), Russell Cohen Hoffing<sup>2</sup>, Alasdair Clarke<sup>1</sup>; <sup>1</sup>University of Essex, <sup>2</sup>DEVCOM Army Research Laboratory

### 23.357 Perceptual span can explain stimulus-specific cultural differences in visual search

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Jun Saiki<sup>1</sup> ([saiki.jun.8e@kyoto-u.ac.jp](mailto:saiki.jun.8e@kyoto-u.ac.jp)); <sup>1</sup>Kyoto University

### 23.358 Measuring competitive oscillatory activity in visual cortical populations using fMRI

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Reebal Rafah<sup>1</sup> ([reebal.rafah@gmail.com](mailto:reebal.rafah@gmail.com)), Geoffrey Ngo<sup>2</sup>, Lyle E Muller<sup>3</sup>, Ravi S Menon<sup>4,5</sup>, Ali R Khan<sup>5</sup>, Taylor W Schmitz<sup>2</sup>, Marieke Mur<sup>6,7</sup>; <sup>1</sup>Neuroscience Graduate Program, Western University, <sup>2</sup>Department of Physiology and Pharmacology, Schulich School of Medicine & Dentistry, Western University, <sup>3</sup>Department of Mathematics, Faculty of Science, Western University, <sup>4</sup>Centre for Functional and Metabolic Mapping, Robarts Research Institute, Western University, <sup>5</sup>Department of Medical Biophysics, Schulich School of Medicine & Dentistry, Western University, <sup>6</sup>Department of Psychology, Faculty of Social Science, Western University, <sup>7</sup>Department of Computer Science, Faculty of Science, Western University

### 23.359 Tracking the Time-Course of Attentional Sharpening using EEG

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Ryan S. Williams<sup>1</sup> ([ryanscott.williams@mail.utoronto.ca](mailto:ryanscott.williams@mail.utoronto.ca)), Jay Pratt<sup>1</sup>, Susanne Ferber<sup>1</sup>; <sup>1</sup>University of Toronto

### 23.360 Revisiting the electrophysiological correlates of feature analysis during visual search

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

John McDonald<sup>1</sup> ([jmcd@sfu.ca](mailto:jmcd@sfu.ca)), Daniel Tay<sup>1</sup>; <sup>1</sup>Simon Fraser University

### **23.361 Brain settings across free-viewing tasks: from Exploration to Visual Search and Hybrid Search**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Juan Esteban Kamienkowski<sup>1</sup> ([jkamienk@gmail.com](mailto:jkamienk@gmail.com)), Damian Care<sup>1</sup>, Joaquin Ezequiel Gonzalez<sup>1</sup>, Anthony J Ries<sup>2</sup>, Matias J Ison<sup>3</sup>; <sup>1</sup>University of Buenos Aires & National Scientific and Technical Research Council, Argentina, <sup>2</sup>U.S. Army Research Laboratory, United States, <sup>3</sup>University of Nottingham, United Kingdom

### **23.362 An ERP investigation of sensory responses preceding first-saccade onsets during visual search.**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Ryan V. Ringer<sup>1</sup> ([ryan.ringer@ucdenver.edu](mailto:ryan.ringer@ucdenver.edu)), Tamar Japaridze<sup>1,2</sup>, Carly J. Leonard<sup>1</sup>; <sup>1</sup>University of Colorado, Denver, <sup>2</sup>University of Pennsylvania

### **23.363 Reward Maps Predict Target-present and Target-absent Visual Search**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Gregory J. Zelinsky<sup>1</sup> ([gregory.zelinsky@stonybrook.edu](mailto:gregory.zelinsky@stonybrook.edu)), Seoyoung Ahn<sup>1</sup>, Zhibo Yang<sup>1</sup>, Yupei Chen<sup>1</sup>, Sounak Mondal<sup>1</sup>, Minh Hoai<sup>1</sup>, Dimitrios Samaras<sup>1</sup>; <sup>1</sup>Stony Brook University

### **23.364 Diagnostic images for Alzheimer's Disease show distinctions in biomarker status and scene-related functional activity between patients and healthy controls**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Yuetong Bai<sup>1</sup> ([ytbai@uchicago.edu](mailto:ytbai@uchicago.edu)), Wilma Bainbridge<sup>1</sup>; <sup>1</sup>University of Chicago

### **23.365 Impact of aging and stroke on a new computerized test of visual attention in far space**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Stéphanie Rossit<sup>1</sup> ([s.rossit@uea.ac.uk](mailto:s.rossit@uea.ac.uk)), Hannah Browning<sup>1</sup>, Allan Clark<sup>1</sup>, Valerie Pomeroy<sup>1</sup>, Helen Morse<sup>1</sup>; <sup>1</sup>University of East Anglia, Norwich, UK

### **23.366 Incidental learning of frequent target features speeds early attentional selection as indexed by the N2pc**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Kevin Ortego<sup>1</sup>, Douglas Addleman<sup>1</sup>, Viola Stoermer<sup>1</sup>; <sup>1</sup>Dartmouth College

## **Aging**

### **23.367 Visuospatial abilities over the lifespan in healthy adults**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Anne-Sophie Laurin<sup>1</sup> ([anne-sophie.laurin@umontreal.ca](mailto:anne-sophie.laurin@umontreal.ca)), Jane Abdo<sup>1</sup>, Linda Gabriela Dunoyer<sup>1</sup>, Denise Y. Henriques<sup>2</sup>, Marius T. Hart<sup>2</sup>, Aarlenne Khan<sup>1</sup>; <sup>1</sup>Université de Montréal, <sup>2</sup>York University

### 23.368 Influence of Aging and Cognitive Load on Alpha-band Oscillation

Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Catherine Reed<sup>1</sup> ([clreed@cmc.edu](mailto:clreed@cmc.edu)), Heather Shipley<sup>1</sup>, Chandlyr Denaro<sup>1</sup>, Alan Hartley<sup>1</sup>, Alison Harris<sup>1</sup>;

<sup>1</sup>Claremont McKenna College

### 23.369 Individual differences in dopamine neurotransmitter functioning shape age-related differences in oculomotor control

Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Jutta Billino<sup>1</sup> ([jutta.billino@psychol.uni-giessen.de](mailto:jutta.billino@psychol.uni-giessen.de)), Sophie Meißner<sup>1</sup>; <sup>1</sup>Experimental Psychology, Justus Liebig University Giessen, Giessen, Germany

### 23.370 Impairment of Perceptual Inhibition in Older adults

Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Ali Pournaghдали<sup>1</sup> ([pournagh@usc.edu](mailto:pournagh@usc.edu)), Teal Eich<sup>1</sup>; <sup>1</sup>University of Southern California

### 23.371 Load dependent neural variability quenching during visual working memory is impaired in older adults

Saturday, May 20, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Wen Wen<sup>1</sup>, Frederik Baumgardt<sup>1</sup>, Douglas Hazel<sup>1</sup>, Peyton Berning<sup>1</sup>, Vighnesh Viswanathan<sup>1</sup>, Olivia Tween<sup>1</sup>, Robert Reinhart<sup>1</sup>; <sup>1</sup>Department of Psychological and Brain Sciences, Boston University

## Saturday Morning Posters in Pavilion

### Motion: Models, neural mechanisms

#### 23.401 Strong interaction between low and high spatial frequencies using induced motion at short durations under binocular and dichoptic viewing.

Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion

Omar Bachtoula<sup>1</sup> ([omarbach@ucm.es](mailto:omarbach@ucm.es)), Ignacio Serrano-Pedraza<sup>1,2</sup>; <sup>1</sup>Universidad Complutense de Madrid, <sup>2</sup>Centre for Behaviour and Evolution, Newcastle University

#### 23.402 Linking Intuitive Physics to Social Cognitive Attributions

Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion

Sajjad Torabian Esfahani<sup>1</sup> ([torabias@uci.edu](mailto:torabias@uci.edu)), John A Pyles<sup>2</sup>, Yujia Peng<sup>3</sup>, Hongjing Lu<sup>4</sup>, Emily D Grossman<sup>1</sup>; <sup>1</sup>University of California, Irvine, <sup>2</sup>University of Washington, <sup>3</sup>Peking University, <sup>4</sup>University of California, Los Angeles

#### 23.403 Prediction of the direction of motion after-effect when the induction phase stimulus is multi-stable

Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion

Juliette Lenouvel<sup>1,2</sup> ([juliette.lenouvel@grenoble-inp.fr](mailto:juliette.lenouvel@grenoble-inp.fr)), Alan Chauvin<sup>2</sup>, Ronald Phlypo<sup>1</sup>; <sup>1</sup>Univ. Grenoble Alpes, CNRS, Grenoble INP, GIPSA-lab (institute of engineering Univ. Grenoble Alpes), <sup>2</sup>Univ. Grenoble Alpes, CNRS, LPNC

### **23.404 Modeling of Human Motion Perception Mechanism: A Simulation based on Deep Neural Network and Attention Transformer**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion*

Zitang sun<sup>1</sup> ([sun.zitang.73u@st.kyoto-u.ac.jp](mailto:sun.zitang.73u@st.kyoto-u.ac.jp)), Yen-Ju Chen<sup>1</sup>, Yung-Hao Yang<sup>1</sup>, Shin'ya Nishida<sup>1,2</sup>; <sup>1</sup>Cognitive Informatics Lab, Department of Intelligence Science and Technology, Graduate School of Informatics, Kyoto University, Japan, <sup>2</sup>Human Information Science Laboratory, NTT Communication Science Laboratories, Nippon Telegraph and Telephone Corporation, Japan

### **23.405 A simple non-linear neural summation model predicts basic and complex motion perception phenomena**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion*

Raúl Luna<sup>1</sup> ([raul.luna@csic.es](mailto:raul.luna@csic.es)), Ignacio Serrano-Pedraza<sup>2</sup>, Marcelo Bertalmío<sup>1</sup>; <sup>1</sup>Spanish National Research Council (CSIC), Institute of Optics, Madrid, Spain., <sup>2</sup>Universidad Complutense de Madrid, Department of Experimental Psychology, Madrid, Spain.

### **23.406 Spatial summation for motion detection**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion*

Joshua Solomon<sup>1</sup> ([j.a.solomon@city.ac.uk](mailto:j.a.solomon@city.ac.uk)), Christopher Tyler<sup>1</sup>; <sup>1</sup>City, University of London

### **23.407 Motion Extrapolation Across the Visual Periphery**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion*

Tero Hakala<sup>1</sup> ([tero.hakala@aalto.fi](mailto:tero.hakala@aalto.fi)), Jami Pekkanen<sup>2</sup>, Otto Lappi<sup>2</sup>, Samuel Tuhkanen<sup>2</sup>, Lauri Oksama<sup>3</sup>; <sup>1</sup>Finnish National Defense University, Helsinki, Finland, <sup>2</sup>University of Helsinki, Helsinki, Finland, <sup>3</sup>University of Turku, Turku, Finland

### **23.408 Bayesian analysis of motion priors and speed discrimination in the periphery**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion*

Amy Nguyen<sup>1</sup>, Michael Landy<sup>2</sup>, Eero Simoncelli<sup>2,3</sup>, Kathryn Bonnen<sup>1</sup>; <sup>1</sup>Indiana University School of Optometry, <sup>2</sup>New York University, <sup>3</sup>Flatiron Institute, New York, NY

### **23.409 Using perception and short latency ocular-following responses (OFRs) to study early visual motion-detecting mechanisms.**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion*

Boris Sheliga<sup>1</sup> ([bms@lsr.nei.nih.gov](mailto:bms@lsr.nei.nih.gov)), Edmond FitzGibbon<sup>1</sup>; <sup>1</sup>Laboratory of Sensorimotor Research, NEI, NIH

### **23.410 Natural-image-computable Bayesian model for 3D motion estimation**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion*

Daniel Herrera<sup>1</sup> ([dherrera1911@gmail.com](mailto:dherrera1911@gmail.com)), Johannes Burge<sup>1,2,3</sup>; <sup>1</sup>Department of Psychology, University of Pennsylvania, Philadelphia, PA, USA, <sup>2</sup>Neuroscience Graduate Group, University of Pennsylvania, Philadelphia, PA, USA, <sup>3</sup>Bioengineering Graduate Group, University of Pennsylvania, Philadelphia, PA, USA

### **23.411 Modeling fMRI responses to complex dynamic stimuli with two-stream convolutional networks**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion*

Hamed Karimi<sup>1</sup> ([hamedk72@gmail.com](mailto:hamedk72@gmail.com)), Jeff Wang<sup>1</sup>, Nicholas Arangio<sup>1</sup>, Stefano Anzellotti<sup>1</sup>; <sup>1</sup>Department of Psychology and Neuroscience, Boston College, Boston, MA 02467, USA

### **23.412 Causal inference predicts the effect of motion uncertainty in motion integration/segregation tasks.**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion*

Boris Penalozza<sup>1</sup> ([bpenaloz@ur.rochester.edu](mailto:bpenaloz@ur.rochester.edu)), Sabyasachi Shivkumar<sup>1</sup>, Gabor Lengyel<sup>1</sup>, Gregory DeAngelis<sup>1</sup>, Ralf Haefner<sup>1</sup>; <sup>1</sup>University of Rochester

## **Temporal Processing: Duration, timing perception**

### **23.413 Modality-independent biases in temporal processing**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion*

Jozsef Fiser<sup>1,2</sup> ([fiserj@ceu.edu](mailto:fiserj@ceu.edu)), Linda Garami<sup>1,2</sup>; <sup>1</sup>Department of Cognitive Science, Central European University, <sup>2</sup>Center for Cognitive Computation, Central European University

### **23.414 Target-Tracking Retinal Stabilization for Studying Peripheral Motion Perception**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion*

Anthony LoPrete<sup>1</sup> ([aloprete@seas.upenn.edu](mailto:aloprete@seas.upenn.edu)), Johannes Burge<sup>1</sup>; <sup>1</sup>University of Pennsylvania

### **23.415 Human visual sampling adaptation to the temporal structure of a dynamic environment**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion*

Jaume Boned<sup>1</sup> ([jboned@ub.edu](mailto:jboned@ub.edu)), López-Moliner Joan<sup>1</sup>; <sup>1</sup>Vision and Control of Action (VISCA) Group, and Institut de Neurociències, Universitat de Barcelona

### **23.416 Adaptation-based duration distortion shows face category specificity**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion*

Akira Sarodo<sup>1</sup>, Kentaro Yamamoto<sup>2</sup>, Katsumi Watanabe<sup>1</sup>; <sup>1</sup>Waseda University, <sup>2</sup>Kyushu University

### **23.417 Bi-phasic filter model can account for the Transient Twinkle Perception**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion*

Chang yeong Han<sup>1</sup> ([hcy0515@unist.ac.kr](mailto:hcy0515@unist.ac.kr)), Seonggyu Choe<sup>1</sup>, Hyosun Kim<sup>2</sup>, Oh-Sang Kwon<sup>1</sup>; <sup>1</sup>Department of Biomedical Engineering, Ulsan National Institute of Science Technology, Ulsan 44919, South Korea, <sup>2</sup>R&D center, Samsung Display, South Korea

### **23.418 The effect of visual affordance on perceived duration during motor action in virtual reality**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion*

Sunny Jin<sup>1</sup> ([sunnyjin41@gmail.com](mailto:sunnyjin41@gmail.com)), Inci Ayhan<sup>1</sup>; <sup>1</sup>Bogazici University, Istanbul, Turkey

### **23.419 A bouncing ball improves performance in time discrimination and production**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion*

Anthony Bruno<sup>1</sup> ([anthony\\_bruno@brown.edu](mailto:anthony_bruno@brown.edu)), Leslie Welch<sup>1</sup>; <sup>1</sup>Brown University

### **23.420 Time perception and emotion in a real-life human-robot swarm interaction**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion*

Müge Cavdan<sup>1</sup> ([muege.cavdan@psychol.uni-giessen.de](mailto:muege.cavdan@psychol.uni-giessen.de)), Julian Kaduk<sup>2,3</sup>, Argiro Vatakis<sup>4</sup>, Heiko Hamann<sup>2\*</sup>, Knut Drewing<sup>1\*</sup>; <sup>1</sup>Justus Liebig University Giessen, Germany, <sup>2</sup>University of Konstanz, Germany, <sup>3</sup>University of Lübeck, Germany, <sup>4</sup>Panteion University of Social and Political Sciences, Greece

### **23.421 Development of audio-tactile temporal binding with and without vision**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion*

Maria Bianca Amadeo<sup>1</sup> ([mariabianca.amadeo@iit.it](mailto:mariabianca.amadeo@iit.it)), Alessia Tonelli<sup>1</sup>, Walter Setti<sup>1</sup>, Carolina Tammurello<sup>1,2</sup>, Claudio Campus<sup>1</sup>, Monica Gori<sup>1</sup>; <sup>1</sup>Italian Institute of Technology, <sup>2</sup>Università degli studi di Genova

### **23.422 The perceived duration of peripheral stimuli does not differ between the inhibition and execution of saccades**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion*

Alina Krug<sup>1</sup> ([alina.krug@uni-ulm.de](mailto:alina.krug@uni-ulm.de)), Lisa Eberhardt, Anke Huckauf; <sup>1</sup>Ulm University

### **23.423 Does the visual system temporally demarcate the complex flow of liquids?**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion*

Yuting Zhang<sup>1</sup>, Tristan Yates<sup>1</sup>, Ilker Yildirim<sup>1</sup>; <sup>1</sup>Yale University

## **Perception & Action: Reaching, aiming, interception**

### **23.424 Functional Brain Networks for Egocentric and Allocentric Memory-guided Reaching.**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion*

Lina Musa<sup>1,3</sup>, Amirhossein Ghaderi<sup>1</sup>, Ying Chen, J. Douglas Crawford<sup>1-3</sup>; <sup>1</sup>Centre for Vision Research, York University, Toronto, ON, Canada, <sup>2</sup>Vision Science to Applications (VISTA), York University, Toronto, ON, Canada, <sup>3</sup>York University, Toronto, ON, Canada

### **23.425 Influence of a visual landmark shift on memory-guided reaching in monkeys**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion*

Jennifer Lin<sup>1</sup> ([linj68@yorku.ca](mailto:linj68@yorku.ca)), Hongying Wang<sup>1</sup>, Saihong Sun<sup>1</sup>, Xiaogang Yan<sup>1</sup>, John Douglas Crawford<sup>1</sup>; <sup>1</sup>York University

### **23.426 Conflicting ordinal depth information interferes with visually-guided reaching**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion*

Domenic Au<sup>1</sup> ([domau@my.yorku.ca](mailto:domau@my.yorku.ca)), Robert S. Allison<sup>1</sup>, Laurie M. Wilcox<sup>1</sup>; <sup>1</sup>York University

### **23.427 Assessment and recovery of visually guided reaching following cerebellar stroke.**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion*

Christopher L. Striemer<sup>1,2</sup> ([striemerc@macewan.ca](mailto:striemerc@macewan.ca)), Chella M. Robles<sup>1</sup>, Britt Andeson<sup>3</sup>, Sean P. Dukelow<sup>4</sup>; <sup>1</sup>MacEwan University, Edmonton, Alberta, Canada, <sup>2</sup>Neuroscience and Mental Health Institute, University of

Alberta, Edmonton, Alberta, Canada, <sup>3</sup>University of Waterloo, Waterloo, Ontario, Canada, <sup>4</sup>University of Calgary, Calgary, Alberta, Canada

### **23.428 Effects of expertise and age on reaching movements guided by vision, memory and proprioception.**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion*

Jose Reynoso<sup>1</sup> ([jose\\_reynoso@urmc.rochester.edu](mailto:jose_reynoso@urmc.rochester.edu)), Emily Isenstein<sup>1,2,3</sup>, Mariah Steele<sup>5</sup>, Khai Du<sup>6</sup>, Leonardo Benavides<sup>6</sup>, Ania Busza<sup>6</sup>, Duje Tadin<sup>1,2,3,4</sup>; <sup>1</sup>Department of Brain and Cognitive Sciences, University of Rochester, <sup>2</sup>Center for Visual Science, University of Rochester, <sup>3</sup>Department of Neuroscience, University of Rochester, <sup>4</sup>Department of Ophthalmology, University of Rochester, <sup>5</sup>Program of Dance and Movement, University of Rochester, <sup>6</sup>Department of Neurology, University of Rochester

### **23.429 Developmental characteristics of visuomotor adaptation strategies in childhood**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion*

Alexander Cook<sup>1</sup> ([acook@psych.ubc.ca](mailto:acook@psych.ubc.ca)), Melissa Aziz<sup>1</sup>, Ahad Zafar<sup>1</sup>, Deborah Giaschi<sup>1</sup>, Hee Yeon Im<sup>1</sup>; <sup>1</sup>University of British Columbia

### **23.430 Pointing at static targets in a virtual reality environment: performance of visually impaired vs. normally-sighted persons**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion*

Vasiliki Myrodia<sup>1</sup>, Aurélie Calabrèse<sup>1</sup>, Ambre Denis-Noël<sup>1</sup>, Frédéric Matonti<sup>2</sup>, Pierre Kornprobst<sup>3</sup>, Eric Castet<sup>1</sup>; <sup>1</sup>Aix-Marseille University, CNRS, LPC, Marseille, France, <sup>2</sup>Centre Monticelli Paradis d'Ophtalmologie, Marseille, France, <sup>3</sup>Université Côte d'Azur, Inria, France

### **23.431 Effects of Spatial Congruence between Responses and Stimuli in Reachable and Unreachable Space**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion*

Michael L. Paavola<sup>1</sup> ([michael-paavola@uiowa.edu](mailto:michael-paavola@uiowa.edu)), J. Toby Mordkoff<sup>1</sup>, Cathleen M. Moore<sup>1</sup>; <sup>1</sup>University of Iowa

### **23.432 Not all actions violate Weber's law**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion*

Francesco Ceccarini<sup>1</sup> ([fc2284@nyu.edu](mailto:fc2284@nyu.edu)), Ivan Camponogara<sup>1</sup>, Robert Volcic<sup>1</sup>; <sup>1</sup>New York University Abu Dhabi

### **23.433 Continuous visual guidance of the moving hand**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion*

Eli Brenner<sup>1</sup> ([e.brenner@fbw.vu.nl](mailto:e.brenner@fbw.vu.nl)), Jeroen B.J. Smeets<sup>1</sup>; <sup>1</sup>Vrije Universiteit Amsterdam

### **23.434 Predictability of object motion trajectory modulates information integration for continuous manual tracking**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion*

Zhongting Chen<sup>1</sup> ([ztchen@psy.ecnu.edu.cn](mailto:ztchen@psy.ecnu.edu.cn)), Yuqi You<sup>1</sup>; <sup>1</sup>East China Normal University

### **23.435 Cross recurrence analysis of a ball retrieval task in Virtual Reality**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion*



Balagopal Raveendranath<sup>1</sup> ([braveen@clemsun.edu](mailto:braveen@clemsun.edu)), Roshan Venkatakrishnan<sup>1</sup>, Rohith Venkatakrishnan<sup>1</sup>, Christopher Pagano<sup>1</sup>, Sabarish Babu<sup>1</sup>; <sup>1</sup>Clemson University

### **23.436 An information-driven nonlinear dynamical model of manual lateral interception**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion*

Danial Borooghani<sup>1</sup> ([danial.borooghani@univ-amu.fr](mailto:danial.borooghani@univ-amu.fr)), Remy Casanova<sup>1</sup>, Frank T. J. M. Zaal<sup>2</sup>, Reinoud J. Bootsma<sup>1</sup>; <sup>1</sup>Aix Marseille Université, CNRS, France, <sup>2</sup>University Medical Center Groningen, The Netherlands

### **23.437 Examining the Affordance of Interceptability: What makes a ball interceptable or not?**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion*

Samruddhi Damle<sup>1</sup> ([s.damle@rug.nl](mailto:s.damle@rug.nl)), Reinoud J. Bootsma<sup>2</sup>, Frank T. J. M. Zaal<sup>1</sup>; <sup>1</sup>University Medical Center Groningen, The Netherlands, <sup>2</sup>Aix Marseille Université, CNRS, France

## **Perception and Action: Navigation and flow in virtual environments**

### **23.438 Allocentric spatial representations dominate when switching between real and virtual worlds**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion*

Meaghan McManus<sup>1</sup> ([meaghan.mcmanus@psychol.uni-giessen.de](mailto:meaghan.mcmanus@psychol.uni-giessen.de)), Franziska Seifert<sup>1</sup>, Immo Schütz<sup>1</sup>, Katja Fiehler<sup>1</sup>; <sup>1</sup>Experimental Psychology, Justus Liebig University Giessen, Giessen, Germany

### **23.439 Spatial learning of a virtual environment with and without an unoccluded vista view**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion*

Ho Ming Chan<sup>1</sup>, Jie Ding<sup>1</sup>, Jeffrey Saunders<sup>1</sup>; <sup>1</sup>The University of Hong Kong

### **23.440 Unexpected Vection predicts the likelihood and severity of Sickness During HMD based Virtual Reality**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion*

Joel Teixeira<sup>1</sup> ([jt629@uowmail.edu.au](mailto:jt629@uowmail.edu.au)), Sebastien Miellat<sup>1</sup>, Stephen Palmisano<sup>1</sup>; <sup>1</sup>University of Wollongong

### **23.441 Visual Collision Avoidance in a Crowd**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion*

Kyra Veprek<sup>1</sup> ([kyraveprek24@gmail.com](mailto:kyraveprek24@gmail.com)), William Warren; <sup>1</sup>Brown University

### **23.442 Motion-in-depth uncertainty is not much worse than lateral uncertainty: evidence from continuous psychophysics**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion*

Joan López-Moliner<sup>1</sup> ([j.lopezmoliner@ub.edu](mailto:j.lopezmoliner@ub.edu)); <sup>1</sup>Universitat de Barcelona

### **23.443 Evidence for a hybrid model in moving target interception**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion*

Michael Beyeler<sup>1</sup>, Justin Kasowski<sup>1</sup>, Anvitha Akkaraju<sup>1</sup>; <sup>1</sup>University of California, Santa Barbara

### **23.444 A variational autoencoder provides novel, data-driven features that explain functional brain representations in a naturalistic navigation task**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion*

Cheol Jun Cho<sup>1</sup>, Tianjiao Zhang<sup>1</sup>, Jack L. Gallant<sup>1</sup>; <sup>1</sup>UC Berkeley

### **23.445 Visual Navigation Under High-Stress Conditions**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion*

Apurv Varshney<sup>1</sup> ([apurv@ucsb.edu](mailto:apurv@ucsb.edu)), Mitch Munns<sup>1</sup>, Justin Kasowski<sup>1</sup>, Mantong Zhou<sup>1</sup>, Chuanxiuyue He<sup>1</sup>, Scott Grafton<sup>1</sup>, Barry Giesbrecht<sup>1</sup>, Mary Hegarty<sup>1</sup>, Michael Beyeler<sup>1</sup>; <sup>1</sup>University of California Santa Barbara

### **23.446 Is optic flow used for steering to a goal?**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion*

Nathaniel Powell<sup>1</sup>, Youjin Oh<sup>1</sup>, Dan Panfili<sup>1</sup>, Mary Hayhoe<sup>1</sup>; <sup>1</sup>University of Texas at Austin

### **23.447 Optic flow density modulates corner-cutting behavior in a virtual reality driving task**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion*

Arianna P. Giguere<sup>1</sup> ([apg7742@rit.edu](mailto:apg7742@rit.edu)), Krystel R. Huxlin<sup>2,3</sup>, Brett R. Fajen<sup>4</sup>, Dujie Tadin<sup>3</sup>, Gabriel J. Diaz<sup>1,3</sup>; <sup>1</sup>Rochester Institute of Technology Center for Imaging Science, <sup>2</sup>Flaum Eye Institute, University of Rochester Medical Center, <sup>3</sup>University of Rochester Center for Visual Science, <sup>4</sup>Rensselaer Polytechnic Institute Department of Cognitive Science

## **Multisensory Processing: Visuo-haptic**

### **23.448 Localizing Visual Allodynia in Migraine**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion*

Carson C Smith<sup>1</sup>, Matthew Cummings<sup>1</sup>, Laura I Van Key<sup>1</sup>, Sarah M Haigh<sup>1</sup>; <sup>1</sup>University of Nevada, Reno

### **23.449 Decoding familiar visual object categories in the MU rhythm oscillatory response**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion*

Fraser Smith<sup>1</sup> ([fraser.smith@uea.ac.uk](mailto:fraser.smith@uea.ac.uk)), Saber Sami<sup>1</sup>, Kerri Bailey<sup>1</sup>; <sup>1</sup>University of East Anglia

### **23.450 Visual displacement judgments are biased by haptic cues within a flexible spatiotemporal window**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion*

Nedim Goktepe<sup>1</sup> ([goektepe@staff.uni-marburg.de](mailto:goektepe@staff.uni-marburg.de)), Knut Drewing<sup>2</sup>, Alexander C. Schütz<sup>1</sup>; <sup>1</sup>Philipps-Universität Marburg, <sup>2</sup>Justus-Liebig-Universität Giessen

### **23.451 Tap-and-pop and pip-and-pop: Tactile, auditory and audiotactile signals facilitate change detection of moving visual stimuli**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion*

Bora Celebi<sup>1</sup> ([bora.celebi@psychol.uni-giessen.de](mailto:bora.celebi@psychol.uni-giessen.de)), Müge Cavdan<sup>1</sup>, Knut Drewing<sup>1</sup>; <sup>1</sup>Justus-Liebig University, Gießen, HapLab

### **23.452 Scale-based modulation of spatio-temporal integration processes during the exploration of embossed images**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion*

Anchal Sharma<sup>1</sup> ([anchals@mit.edu](mailto:anchals@mit.edu)), P.V.M. Rao<sup>2</sup>, Srinivasan V.<sup>2</sup>, Pawan Sinha<sup>1</sup>; <sup>1</sup>Massachusetts Institute of Technology, <sup>2</sup>Indian Institute of Technology Delhi

### **23.453 Cortical areas involved in imagery and haptic exploration of object size**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion*

Samantha Sartin<sup>1</sup> ([samantha.sartin@unitn.it](mailto:samantha.sartin@unitn.it)), Federica Danaj<sup>2</sup>, Fabio Del Giudice<sup>1</sup>, Irene Sperandio<sup>1</sup>, Simona Monaco<sup>1</sup>; <sup>1</sup>University of Trento, <sup>2</sup>University of Regensburg

### **23.454 Characterizing and decoding visual percepts of real objects in a blind individual using fMRI**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion*

Jesse Breedlove<sup>1</sup> ([jbreedlo@umn.edu](mailto:jbreedlo@umn.edu)), Logan Dowdle<sup>1</sup>, Thomas Naselaris<sup>1</sup>, Cheryl Olman<sup>1</sup>; <sup>1</sup>University of Minnesota

### **23.455 The correlation of tactile properties of fabrics between visual and touch.**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion*

Qinyuan Li<sup>1</sup> ([cm18ql@leeds.ac.uk](mailto:cm18ql@leeds.ac.uk)), Kaida Xiao<sup>1</sup>, Michael Pointer<sup>1</sup>, Ningtao Mao<sup>1</sup>; <sup>1</sup>University of Leeds

### **23.456 The Effect of Visual Movement Information on Texture Discrimination Performance and Movement Control in Active Touch**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion*

Didem Katircilar<sup>1</sup> ([didem.katircilar@psychol.uni-giessen.de](mailto:didem.katircilar@psychol.uni-giessen.de)), Knut Drewing<sup>1</sup>; <sup>1</sup>Justus Liebig University Giessen

### **23.457 Prior static visual information on material properties increases the efficiency of a subsequent haptic exploration**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion*

Michaela Jeschke<sup>1</sup> ([michaela.jeschke@psychol.uni-giessen.de](mailto:michaela.jeschke@psychol.uni-giessen.de)), Knut Drewing<sup>1</sup>; <sup>1</sup>Justus-Liebig University Gießen

### **23.458 Phantom tactile sensations induced by double vision**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion*

Robert Volcic<sup>1</sup>, Mariam Amer<sup>1</sup>; <sup>1</sup>New York University Abu Dhabi

### **23.459 Decoding the Mass of Familiar Objects from MEG**

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion*

Willian De Faria<sup>1</sup> ([wdefaria@mit.edu](mailto:wdefaria@mit.edu)), Pramod R.T.<sup>1</sup>, Nancy Kanwisher<sup>1</sup>; <sup>1</sup>Massachusetts Institute of Technology

## **Visual Memory: Long term memory**

### **23.460 Hippocampal and visual cortex contributions to resolving competition during**

## memory-guided attention

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion*

Serra E Favila<sup>1</sup> ([sef2177@columbia.edu](mailto:sef2177@columbia.edu)), Mariam Aly<sup>1</sup>; <sup>1</sup>Columbia University

## 23.461 Images viewed for longer durations are better remembered during naturalistic encoding

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion*

Shaimaa masarwa<sup>1</sup>, Olga Kreichman<sup>1</sup>, Limor Brook<sup>1</sup>, Sharon Gilaie-Dotan<sup>1,2</sup>; <sup>1</sup>Bar Ilan University, <sup>2</sup>UCL

## 23.462 Long-term memory for objects in real-world scenes: The effects of semantic consistency and task priorities

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion*

Sara Spotorno<sup>1</sup> ([sara.spotorno@durham.ac.uk](mailto:sara.spotorno@durham.ac.uk)), Sebastian Tustanowski<sup>2</sup>; <sup>1</sup>Psychology Department, Durham University, UK, <sup>2</sup>School of Psychology, Keele University, UK

## 23.463 Long-term representations systematically bias ongoing perception

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion*

Irene Echeverria-Altuna<sup>1</sup> ([ireneetxeberria@gmail.com](mailto:ireneetxeberria@gmail.com)), Sage E.P. Boettcher<sup>1</sup>, Anna C. Nobre<sup>1</sup>; <sup>1</sup>University of Oxford

## 23.464 Memory augmentation with adaptive cognitive interfaces

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion*

Julia Pruin<sup>1</sup>, Wilma Bainbridge<sup>1</sup>, Monica Rosenberg<sup>1</sup>, Megan deBettencourt<sup>1</sup>; <sup>1</sup>University of Chicago

## 23.465 Predictable learning demands enable direct down-regulation of visual long-term memory encoding

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion*

Joseph M. Saito<sup>1</sup> ([joseph.saito@mail.utoronto.ca](mailto:joseph.saito@mail.utoronto.ca)), Keisuke Fukuda<sup>1,2</sup>; <sup>1</sup>University of Toronto, <sup>2</sup>University of Toronto Mississauga

## 23.466 The dependence (or independence) of object features in VLTM is a continuous, not a binary problem: The role of conceptual vs. perceptual features

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion*

Nurit Gronau<sup>1</sup> ([nuritgro@openu.ac.il](mailto:nuritgro@openu.ac.il)), Rotem Avital-Cohen<sup>1</sup>; <sup>1</sup>The Open University of Israel

## 23.467 Uncovering the dynamics of visual memory representations over time

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion*

Eden zohar<sup>1</sup> ([edenzohar04@gmail.com](mailto:edenzohar04@gmail.com)), Dekel Abeles<sup>1</sup>, Stas Kozak<sup>1</sup>, Nitzan Censor<sup>1</sup>; <sup>1</sup>Tel Aviv University

## 23.468 Physical image properties influence image memorability in a category-dependent manner

*Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion*

Sharon Gilaie-Dotan<sup>1,2</sup> ([shagido@gmail.com](mailto:shagido@gmail.com)), Olga Kreichman<sup>1</sup>, Limor Brook<sup>1</sup>, Shaimaa Masarwa<sup>1</sup>; <sup>1</sup>Bar Ilan University, <sup>2</sup>UCL

## 23.469 Probabilistic encoding and well-calibratedness of long-term episodic memory

Saturday, May 20, 2023, 8:30 am – 12:30 pm, Pavilion

Dávid Magas<sup>1,2</sup> ([magas\\_david@phd.ceu.edu](mailto:magas_david@phd.ceu.edu)), József Fiser<sup>1,2</sup>; <sup>1</sup>Department of Cognitive Science, Central European University, <sup>2</sup>Center for Cognitive Computation, Central European University

# Saturday Afternoon Posters in Banyan Breezeway

## Color, Light and Materials: Lightness, brightness

### 26.301 Separate normalization of ON / OFF channels is not enough to account for perceived brightness

Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway

Joris Vincent<sup>1</sup> ([joris.vincent@tu-berlin.de](mailto:joris.vincent@tu-berlin.de)), Marianne Maertens<sup>1</sup>; <sup>1</sup>Technische Universität Berlin

### 26.302 The role of rod and cone signals in mesopic brightness induction

Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway

Pablo A. Barrionuevo<sup>1,2</sup> ([pbarrionuevo@herrera.unt.edu.ar](mailto:pbarrionuevo@herrera.unt.edu.ar)), Alexander C. Schütz<sup>3</sup>, Karl R. Gegenfurtner<sup>1</sup>; <sup>1</sup>Justus Liebig Universität Gießen, <sup>2</sup>Consejo Nacional de Investigaciones Científicas y Técnicas, <sup>3</sup>Philipps-Universität Marburg

### 26.303 The asymmetry between achromatic increments and decrements in perceptual scaling and discrimination

Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway

Yangyi Shi<sup>1</sup> ([shi.yang@northeastern.edu](mailto:shi.yang@northeastern.edu)), Rhea T. Eskew, Jr.<sup>1</sup>; <sup>1</sup>Northeastern University

### 26.304 Luminance and heterochromatic brightness

Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway

Shuchen Guan<sup>1</sup> ([shuchen.guan@psychol.uni-giessen.de](mailto:shuchen.guan@psychol.uni-giessen.de)), Robert Ennis<sup>1</sup>, Matteo Toscani<sup>2</sup>, Jing Chen<sup>3</sup>, Karl Gegenfurtner<sup>1</sup>; <sup>1</sup>Justus-Liebig Universität, Gießen, <sup>2</sup>Bournemouth University, UK, <sup>3</sup>Shanghai University of Sport, China

### 26.305 Effect of Background Color and Light Source Intensity on Lightness Discrimination Thresholds

Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway

Devin Reynolds<sup>1</sup> ([djreynolds@aggies.ncat.edu](mailto:djreynolds@aggies.ncat.edu)), Vijay Singh<sup>1</sup>; <sup>1</sup>North Carolina Agricultural and Technical State University

### 26.306 Measuring lightness constancy with varying realism

Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway

David-Elias Künstle<sup>1</sup> ([david-elias.kuenstle@uni-tuebingen.de](mailto:david-elias.kuenstle@uni-tuebingen.de)), Felix A. Wichmann<sup>1</sup>; <sup>1</sup>University of Tübingen

### 26.307 Discriminating color ensembles

Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway

Jesse R. Macyszko<sup>1</sup> ([jrmacyszko@gmail.com](mailto:jrmacyszko@gmail.com)), Michael A. Webster<sup>1</sup>; <sup>1</sup>University of Nevada, Reno

## 26.308 Can deep neural networks for intrinsic image decomposition model human lightness constancy?

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Alban Flachot<sup>1</sup> ([flachot.alban@gmail.com](mailto:flachot.alban@gmail.com)), Jaykishan Patel<sup>1</sup>, Khushbu Patel<sup>1</sup>, Tom S. A. Wallis<sup>2</sup>, Marcus Brubaker<sup>1</sup>, David H. Brainard<sup>3</sup>, Richard F. Murray<sup>1</sup>; <sup>1</sup>York University, <sup>2</sup>TU Darmstadt, <sup>3</sup>University of Pennsylvania

## 26.309 Eye closure elicits qualitatively distinct responses within the lateral geniculate nucleus and visual cortex

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Nicholas Cicero<sup>1,3</sup> ([ngcicero@bu.edu](mailto:ngcicero@bu.edu)), Michaela Klimova<sup>2</sup>, Laura Lewis<sup>1,3</sup>, Sam Ling<sup>1,2</sup>; <sup>1</sup>Graduate Program in Neuroscience, Boston University, <sup>2</sup>Department of Psychological and Brain Sciences, Boston University, <sup>3</sup>Department of Biomedical Engineering, Boston University

## 26.310 Free and fast implementations of a novel lightness computational model

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Yuki Kobayashi<sup>1,2,3</sup> ([y-koba@gst.ritsumei.ac.jp](mailto:y-koba@gst.ritsumei.ac.jp)), Masanori Kanamaru<sup>2,4</sup>, Akiyoshi Kitaoka<sup>1</sup>; <sup>1</sup>Ritsumeikan University, <sup>2</sup>Japan Society for the Promotion of Science, <sup>3</sup>American University, <sup>4</sup>The University of Tokyo

## 26.311 Statistical properties of 1st- and 2nd-order brightness induction in a disk/annulus paradigm

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Osman B. Kavcar<sup>1</sup> ([okavcar@nevada.unr.edu](mailto:okavcar@nevada.unr.edu)), Michael A. Crognale<sup>1,2</sup>, Michael E. Rudd<sup>1,2</sup>; <sup>1</sup>University of Nevada, Reno, <sup>2</sup>Center for Integrative Neuroscience

## 26.312 Linearisation of a monitor for web-based experiments

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Jonathan Peirce<sup>1,2</sup> ([jonathan.peirce@nottingham.ac.uk](mailto:jonathan.peirce@nottingham.ac.uk)), Kimberley Dundas<sup>2</sup>, Rebecca Hirst<sup>2</sup>, Nikita Agafonov<sup>2</sup>, Alain Pitiot<sup>2</sup>; <sup>1</sup>University of Nottingham, Nottingham, UK, <sup>2</sup>Open Science Tools Ltd, Nottingham, UK

## 26.313 Optimizing data acquisition for MLDS: when is it valid to take a short-cut?

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Guillermo Aguilar<sup>1</sup> ([guillermo.aguilar@mail.tu-berlin.de](mailto:guillermo.aguilar@mail.tu-berlin.de)), Jakob Grünwald<sup>2</sup>, Marianne Maertens<sup>1</sup>; <sup>1</sup>Technische Universität Berlin, Germany, <sup>2</sup>Université Côte d'Azur, France.

## Color, Light and Materials: Cognition

### 26.314 Color naming, color identification, and the focal color terms

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Angela Brown<sup>1</sup> ([brown.112@osu.edu](mailto:brown.112@osu.edu)), Delwin Lindsey<sup>1</sup>; <sup>1</sup>Ohio State University

### 26.315 Hue ensemble segregation does not rely on color categories

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Lari Virtanen<sup>1</sup> ([lari.virtanen@helsinki.fi](mailto:lari.virtanen@helsinki.fi)), Maria Olkkonen<sup>1</sup>, Toni Saarela<sup>1</sup>; <sup>1</sup>University of Helsinki

## **26.316 Hue variation masks effects of lightness on interpretations of colormap data visualizations**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Clementine Zimmnicki<sup>1,2</sup> ([clemzimmnicki@gmail.com](mailto:clemzimmnicki@gmail.com)), Danielle Albers Szafir<sup>3</sup>, Karen B. Schloss<sup>1,2</sup>; <sup>1</sup>Department of Psychology, University of Wisconsin–Madison, <sup>2</sup>Wisconsin Institute for Discovery, University of Wisconsin–Madison, <sup>3</sup>Department of Computer Science, University of North Carolina, Chapel Hill

## **26.317 Investigation of the opaque-is-more bias reveals a high chroma-is-more bias for colormap data visualizations**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Melissa A. Schoenlein<sup>1</sup> ([schoenlein@wisc.edu](mailto:schoenlein@wisc.edu)), Mouloukou D. Sidibe<sup>2</sup>, Karen B. Schloss<sup>1</sup>; <sup>1</sup>University of Wisconsin-Madison, <sup>2</sup>Lycoming College

## **Attention: Top-down, reward**

### **26.318 Active attentional suppression and its limitations in the template-for-rejection effect**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Tomoyuki Tanda<sup>1</sup> ([t.tanda@let.hokudai.ac.jp](mailto:t.tanda@let.hokudai.ac.jp)), Jun-ichiro Kawahara<sup>2</sup>; <sup>1</sup>Hokkaido University

### **26.319 Are complex attentional templates restricted to a single location?**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Keith Racioppo<sup>1</sup>, Benjamin Tamber-Rosenau<sup>1</sup>; <sup>1</sup>University of Houston

### **26.320 Reduced contextual variability facilitates learned attending towards task-relevant features and away from distracting information**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Chris Jungerius<sup>1,2</sup> ([d.c.jungerius@uva.nl](mailto:d.c.jungerius@uva.nl)), Sophie Perizonius<sup>1</sup>, Heleen Slagter<sup>1</sup>; <sup>1</sup>Vrije Universiteit Amsterdam, <sup>2</sup>University of Amsterdam

### **26.321 Selection errors: How do target and distractor features affect attentional capture and learning of spatial distractor regularities?**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Aylin A. Hanne<sup>1</sup> ([aylin.hanne@uni-marburg.de](mailto:aylin.hanne@uni-marburg.de)), Jan Tünnermann<sup>1</sup>, Anna Schubö<sup>1</sup>; <sup>1</sup>Philipps-University Marburg

### **26.322 Spatial distraction reverses category-tuned attentional filters by disrupting both facilitation and suppression**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Blaire Dube<sup>1</sup> ([dube.25@osu.edu](mailto:dube.25@osu.edu)), Lasyapriya Pidaparathi<sup>1,2</sup>, Julie D. Golomb<sup>1</sup>; <sup>1</sup>The Ohio State University, <sup>2</sup>Vanderbilt University

### **26.323 Effort-driven attentional capture**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Molly McKinney<sup>1</sup> ([mollyr.mckinney@tamu.edu](mailto:mollyr.mckinney@tamu.edu)), David Lee<sup>2</sup>, Brian Anderson<sup>3</sup>; <sup>1</sup>Texas A&M University

### **26.324 Learned reliability of a distracting cue impacts feature errors**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

John A. McNally<sup>1</sup> ([johnamcnally@outlook.com](mailto:johnamcnally@outlook.com)), William Narhi-Martinez<sup>1</sup>, Andrew B. Leber<sup>1</sup>, Julie D. Golomb<sup>1</sup>;  
<sup>1</sup>Department of Psychology, The Ohio State University

### **26.325 Value-Driven Attentional Capture and Reward Variability**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Sojung Youn<sup>1</sup> ([syoun@tamu.edu](mailto:syoun@tamu.edu)), Brian Anderson<sup>1</sup>; <sup>1</sup>Texas A&M University

### **26.326 It's All About Me: Attentional Prioritization of Self-Rewarding Information**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Rebecca Warren<sup>1</sup> ([rebeccawarren@tamu.edu](mailto:rebeccawarren@tamu.edu)), Andrew Clement<sup>1</sup>, Brian Anderson<sup>1</sup>; <sup>1</sup>Texas A&M University

## **Face Perception: Individual differences**

### **26.327 Contribution of a common ability in judgments for the mode of object identities**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Oakyoon Cha<sup>1</sup> ([oakyoon.cha@sungshin.ac.kr](mailto:oakyoon.cha@sungshin.ac.kr)); <sup>1</sup>Sungshin Women's University

### **26.328 Face recognition plays a role in ensemble judgments of facial features**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Soo Jin Kim<sup>1</sup> ([soojin3926@gmail.com](mailto:soojin3926@gmail.com)), Oakyoon Cha<sup>1</sup>; <sup>1</sup>Sungshin Women's University

### **26.329 Effects of Age and Fixation Location on Face Identification**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Eric Cui<sup>1,2</sup> ([mcui@research.baycrest.org](mailto:mcui@research.baycrest.org)), Farhan Abdul Vaheed<sup>3</sup>, Eugenie Roudaia<sup>2</sup>, Björn Herrmann<sup>1,2</sup>, Allison B. Sekuler<sup>1,2,3</sup>; <sup>1</sup>Psychology, University of Toronto, <sup>2</sup>Rotman Research Institute, Baycrest, <sup>3</sup>Psychology, Neuroscience & Behaviour, McMaster University

### **26.330 Individual differences in judging facial categories**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Kassandra R. Lee<sup>1</sup> ([kassandral@nevada.unr.edu](mailto:kassandral@nevada.unr.edu)), Michael A. Webster<sup>1</sup>; <sup>1</sup>Integrative Neuroscience, Dept. of Psychology, University of Nevada, Reno

### **26.331 Individual differences in rapid face-directed saccades**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Maximilian Davide Broda<sup>1</sup> ([maximilian.broda@psychol.uni-giessen.de](mailto:maximilian.broda@psychol.uni-giessen.de)), Benjamin de Haas<sup>1</sup>; <sup>1</sup>Justus Liebig University Giessen

### **26.332 Stable individual differences in the serial dependence of face perception**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Yuki Murai<sup>1</sup> ([ymurai@nict.go.jp](mailto:ymurai@nict.go.jp)), David Whitney<sup>2</sup>; <sup>1</sup>National Institute of Information and Communications Technology, <sup>2</sup>University of California, Berkeley



### **26.333 The computational value of face information sampled by super-recognizers**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Sebastien Mielle<sup>1</sup> ([smielle@uow.edu.au](mailto:smielle@uow.edu.au)), James D. Dunn<sup>2</sup>, Victor P. L. Varela<sup>2</sup>, Bojana Popovic<sup>2</sup>, Stephanie Summersby<sup>2</sup>, David White<sup>2</sup>; <sup>1</sup>University of Wollongong, <sup>2</sup>UNSW Sydney

### **26.334 Impact of judgment criteria on the hue-dependent brightness perception of face**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Yuanyuan He<sup>1</sup> ([heyuanyuan@chiba-u.jp](mailto:heyuanyuan@chiba-u.jp)), Hiromi Y. Sato<sup>1</sup>, Yoko Mizokami<sup>1</sup>; <sup>1</sup>Chiba University, Japan

### **26.335 Does Observers' Ethnicity Influence Visual Strategies for Gender and Expressiveness Judgments ?**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Isabelle Charbonneau<sup>1</sup> ([isabellecharbonneau8@gmail.com](mailto:isabellecharbonneau8@gmail.com)), Vicki Ledrou-Paquet<sup>1</sup>, Caroline Blais<sup>1</sup>, Daniel Fiset<sup>1</sup>; <sup>1</sup>Universite du Quebec en Outaouais, <sup>2</sup>Psychoeducation and Psychology department

### **26.336 Mixed-race categorization of Asian-White and Asian-Black faces in Taiwanese children and adults: effect of skin color revealed by a 3AFC task**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Sarina Hui-Lin Chien<sup>1,2</sup> ([sarinachien@mail.cmu.edu.tw](mailto:sarinachien@mail.cmu.edu.tw)), Chien-Kai Chang<sup>1</sup>, Evelyn Hsin-Yi Tsai<sup>3</sup>, I-Fan Lin<sup>4</sup>; <sup>1</sup>Graduate Institute of Biomedical Sciences, China Medical University, Taiwan, <sup>2</sup>Center for Neuroscience and Brain Diseases, China Medical University, Taiwan, <sup>3</sup>Graduate Program of Cognitive Sciences in Education, Columbia University, NYC, <sup>4</sup>Department of Clinical Toxicology and Occupational Medicine, Taipei Veterans General Hospital, Taiwan

### **26.337 Development of Electrophysiological Correlates of Face/non-face Distinction in Children with Late Sight Onset**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Chetan Ralekar<sup>1</sup> ([cralekar@mit.edu](mailto:cralekar@mit.edu)), Shefali Gupta<sup>2</sup>, Tapan Kumar Gandhi<sup>2</sup>, Sharon Gilad-Gutnick<sup>1</sup>, Dhun Verma<sup>3</sup>, Priti Gupta<sup>4</sup>, Suma Ganesh<sup>5</sup>, Umang Mathur<sup>5</sup>, Pawan Sinha<sup>1</sup>; <sup>1</sup>Department of Brain and Cognitive Sciences, Massachusetts Institute of Technology, Cambridge, MA, USA, <sup>2</sup>Department of Electrical Engineering, Indian Institute of Technology Delhi, New Delhi, India, <sup>3</sup>Project Prakash, Dr. Shroff's Charity Eye Hospital, Delhi, India, <sup>4</sup>Amarnath and Shashi Khosla School of Information Technology, Indian Institute of Technology, Delhi, India, <sup>5</sup>Department of Ophthalmology, Dr. Shroff's Charity Eye Hospital, Delhi, India

### **26.338 The visual perks of (not) being a wallflower: how individual differences in social intelligence predict face recognition performance**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Maleah J. Carter<sup>1</sup>, Spencer Andrews<sup>1</sup>, Shruti Japee<sup>1</sup>, J. Brendan Ritchie<sup>1</sup>; <sup>1</sup>Laboratory of Brain and Cognition, NIMH, NIH

### **26.339 Autistic adults exhibit highly precise representations of others' emotions but a reduced influence of emotion representations on emotion recognition accuracy**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

JENNIFER COOK<sup>1</sup> ([j.l.cook@bham.ac.uk](mailto:j.l.cook@bham.ac.uk)), Connor Keating<sup>1</sup>, Eri Ichijo<sup>2</sup>; <sup>1</sup>University of Birmingham, <sup>2</sup>University of Oxford

## Face Perception: Emotion

### 26.340 The impact of face ethnicity on the detection of pain facial expressions

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Daphnée Sénécal<sup>1</sup> ([daphnee.senecal@outlook.com](mailto:daphnee.senecal@outlook.com)), Marie-Pier Plouffe-Demers<sup>2</sup>, Daniel Fiset<sup>3</sup>, Caroline Blais<sup>4</sup>; <sup>1</sup>Université du Québec en Outaouais, <sup>2</sup>Université du Québec à Montréal

### 26.341 Which gender do we perceive in a painful face?

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Camille Saumure<sup>1</sup> ([camille.saumureregimbald@unifr.ch](mailto:camille.saumureregimbald@unifr.ch)), Caroline Blais<sup>2</sup>, Daniel Fiset<sup>2</sup>, Roberto Caldara<sup>1</sup>; <sup>1</sup>University of Fribourg, <sup>2</sup>University of Quebec in Outaouais

### 26.342 Mental Representations of Pain: the Effect of the Sex of the Perceiver

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Ariane Richer<sup>1</sup>, Marie-Pier Plouffe-Demers<sup>1,2</sup>, Francis Gingras<sup>1,2</sup>, Daniel Fiset<sup>1</sup>, Caroline Blais<sup>1</sup>; <sup>1</sup>Université du Québec en Outaouais (UQO), <sup>2</sup>Université du Québec à Montréal (UQAM)

### 26.343 Emotional judgments depend on perceived gender

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Sheida Mirzaei Domabi<sup>1</sup> ([mirsh-25@rhodes.edu](mailto:mirsh-25@rhodes.edu)), Ellie Leahey<sup>2</sup>, Jason Haberman<sup>3</sup>; <sup>1</sup>Rhodes college

### 26.345 Longer presentation duration helps to individuate faces in an RSVP stream

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Nidhi Deepu Rajan<sup>1</sup> ([nidh0001@e.ntu.edu.sg](mailto:nidh0001@e.ntu.edu.sg)), Haojiang Ying<sup>2</sup>, Hong Xu<sup>1</sup>; <sup>1</sup>Nanyang Technological University, <sup>2</sup>Soochow University

### 26.346 The Contextual Affects of Facial Expression

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Bliss Cui<sup>1</sup> ([cui.bl@northeastern.edu](mailto:cui.bl@northeastern.edu)), Peter Bex<sup>1</sup>, Lisa Feldman Barrett<sup>1</sup>; <sup>1</sup>Northeastern University

### 26.347 Positive and negative facial valence are differently modulated by eccentricity: Replicating and extending earlier findings

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Vasilisa Akselevich<sup>1</sup>, Sharon Gilaie-Dotan<sup>1,2</sup>; <sup>1</sup>Bar-Ilan University, <sup>2</sup>UCL

### 26.348 Unbiased by redundant signals: Negativity bias for emotion perception of single but not two identical faces

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Yu R. Dandan<sup>1</sup> ([dandan.yu@univ-lille.fr](mailto:dandan.yu@univ-lille.fr)), Li L-Miao<sup>1,2</sup>, Bilge Sayim<sup>1,3</sup>; <sup>1</sup>Univ. Lille, CNRS, UMR9193 - SCALab - Sciences Cognitives et Sciences Affectives, F-59000 Lille, France, <sup>2</sup>Faculty of Psychology and Educational Sciences, KU Leuven @Kulak, Kortrijk, Belgium, <sup>3</sup>Institute of Psychology, University of Bern, Bern, Switzerland

### **26.349 Angry faces do draw out attention more compared to happy faces**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Young Jun Yoon<sup>1</sup> ([dudwns7367@gmail.com](mailto:dudwns7367@gmail.com)), Sung Jun Joo<sup>1</sup>; <sup>1</sup>Pusan National University

### **26.350 Upside-Down Selfies Look Much More Alert and Awake**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Michael K. McBeath<sup>1,2</sup> ([michael.mcbeath@asu.edu](mailto:michael.mcbeath@asu.edu)), Mathew D. Langley<sup>1</sup>, Sophia Baia<sup>1</sup>; <sup>1</sup>Arizona State University, <sup>2</sup>Max Planck Institute for Empirical Aesthetics

### **26.351 Modeling Emotional Cue Integration of Context-rich and Dynamic Stimuli reveals Bayesian as well as anti-Bayesian Properties**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Jefferson Ortega<sup>1</sup> ([jefferson\\_ortega@berkeley.edu](mailto:jefferson_ortega@berkeley.edu)), Yuki Murai<sup>2</sup>, David Whitney<sup>1</sup>; <sup>1</sup>University of California, Berkeley, <sup>2</sup>National Institute of Information and Communications Technology

### **26.352 The visual representation of pain facial expressions: a high-definition transcranial direct current stimulation study**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Marie-Claude Desjardins<sup>1</sup> ([mc.desjardins00@gmail.com](mailto:mc.desjardins00@gmail.com)), Daphnée Sénécal<sup>1</sup>, Sara Tremblay<sup>1,2,3</sup>, Daniel Fiset<sup>1</sup>, Francis Gingras<sup>1</sup>, Caroline Blais<sup>1</sup>; <sup>1</sup>University of Québec in Outaouais, <sup>2</sup>Neuromodulation Research Clinic, Royal#039;s Institute of Mental Health Research, <sup>3</sup>Department of Cellular and Molecular Medicine, University of Ottawa

### **26.353 Decoding the neural representations of emotional faces in stereo- versus monoscopic viewing conditions**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Felix Klotzsche<sup>1,2,3</sup> ([klotzsche@cbs.mpg.de](mailto:klotzsche@cbs.mpg.de)), Ammara Nasim<sup>1,4</sup>, Simon M. Hofmann<sup>1,5</sup>, Arno Villringer<sup>1,2</sup>, Vadim V. Nikulin<sup>1</sup>, Werner Sommer<sup>2,3,6</sup>, Michael Gaebler<sup>1,2</sup>; <sup>1</sup>Max Planck Institute for Human Cognitive and Brain Sciences, <sup>2</sup>Humboldt-Universität zu Berlin, Berlin School of Mind and Brain, Germany, <sup>3</sup>Humboldt-Universität zu Berlin, Department of Psychology, Germany, <sup>4</sup>Carl von Ossietzky Universität Oldenburg, Germany, <sup>5</sup>Fraunhofer Institute Heinrich Hertz, Department of Artificial Intelligence, Berlin, Germany, <sup>6</sup>Zhejiang Normal University, Department of Psychology, Jinhua, China

### **26.354 Probing the link between dynamics of "face-selectivity" in macaque IT cortex and facial emotion discrimination behavior**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Maren Wehrheim<sup>1</sup> ([marenwehrheim@gmail.com](mailto:marenwehrheim@gmail.com)), Na Yeon Kim<sup>2</sup>, Ralph Adolphs<sup>2</sup>, Kohitij Kar<sup>3</sup>; <sup>1</sup>Goethe University Frankfurt, <sup>2</sup>California Institute of Technology, <sup>3</sup>York University

## **Undergraduate Just-In-Time 1**

### **26.355 Are Artificial Motion Scotomas Driven by Cortical Feedback or Lateral Inhibition Mechanisms?**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Wing Kwan Hannah Chu<sup>1</sup> ([wkc267@nyu.edu](mailto:wkc267@nyu.edu)), Kartik K Sreenivasan<sup>1,2</sup>, Bas Rokers<sup>1,2,3</sup>; <sup>1</sup>Psychology, New York University Abu Dhabi, <sup>2</sup>Center for Brain & Health, New York University Abu Dhabi, <sup>3</sup>Aspire Precision Medicine Institute Abu Dhabi, New York University Abu Dhabi

### **26.356 Somehow, everything has changed: Event boundaries defined only by unnoticed changes in implicit visuospatial statistics drive active forgetting in visual working memory**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Pranava Dhar<sup>1</sup>, Joan Danielle K. Ongchoco<sup>1</sup>, Kimberly W. Wong<sup>1</sup>, Brian Scholl<sup>1</sup>; <sup>1</sup>Yale University

### **26.357 VWM Impairs Visual Detection: A Function of Shared Attentional or Sensory Resources**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Aysha Hamkari<sup>1</sup> ([aah698@nyu.edu](mailto:aah698@nyu.edu)), David Melcher<sup>1,2</sup>; <sup>1</sup>Division of Science, Department of Psychology, New York University Abu Dhabi, <sup>2</sup>Center for Brain & Health, NYUAD Research Institute, New York University Abu Dhabi

### **26.358 Effects of Familiarity in Advertisements Logos During The Attentional Blink**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Shaun Besch<sup>1</sup>, Juan Guevara Pinto<sup>1</sup>; <sup>1</sup>Rollins College

### **26.359 Target similarity in the attentional blink explained by recurrent convolutional networks**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Emmanuel Lebeau<sup>1</sup>, Daniel Lindh<sup>2,3</sup>, Adrien Doerig<sup>4</sup>, Tim C. Kietzmann<sup>4</sup>, Ilja G. Sligte<sup>2</sup>, Shapiro Kimron L.<sup>3</sup>, Ian Charest<sup>1,3</sup>; <sup>1</sup>Cerebrum, Département de Psychologie, Université de Montréal, Canada, <sup>2</sup>Department of Psychology, University of Amsterdam, The Netherlands, <sup>3</sup>Centre for Human Brain Health, School of Psychology, University of Birmingham, United Kingdom, <sup>4</sup>Institute of Cognitive Science, University of Osnabrück, Germany

### **26.360 Reconstruction of Motion Feature Maps From Human Cortex Using An Augmented Inverted Encoding Model**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Connor Ding<sup>1</sup>, Daniel Thayer<sup>1</sup>, Thomas Sprague<sup>1</sup>; <sup>1</sup>University of California, Santa Barbara

### **26.361 Seeing both sides of things: Exploring visual consciousness and self-awareness**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Anwasha Das<sup>1</sup>, Daw-An Wu<sup>1</sup>, Shinsuke Shimojo<sup>1</sup>; <sup>1</sup>California Institute of Technology (Caltech)

### **26.362 The automaticity of 'seeing-in': Pictorial depth cues influence judgments of surrounding spatial relationships even when task-irrelevant**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Kexuan Zhang<sup>1</sup>, June Huang<sup>1</sup>, Benjamin van Buren<sup>1</sup>; <sup>1</sup>The New School

### **26.363 Interaction of expectancy effects and the illusory object benefit on working memory performance**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Phelix Rodriguez<sup>1</sup>, Yin-ting Lin<sup>1</sup>, Andrew B. Leber<sup>1</sup>; <sup>1</sup>The Ohio State University

### **26.364 The Things–Action Database**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Natalia Pallis-Hassani<sup>1</sup>, Shruti Japee<sup>2</sup>, Chris Baker<sup>3</sup>, Maryam Vaziri-Pashkam<sup>4</sup>; <sup>1</sup>Lab of Brain and Cognition, National Institute of Mental Health

### **26.365 Investigating the neural development of social scene perception in young children using naturalistic stimuli**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Elizabeth Jiwon Im<sup>1</sup> ([imelizabeth@jhu.edu](mailto:imelizabeth@jhu.edu)), Angira Shirahatti<sup>1</sup>, Leyla Isik<sup>1</sup>; <sup>1</sup>Johns Hopkins University

### **26.366 Target interception in virtual reality is faster for natural than unnatural trajectory shapes**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Sofia Varon<sup>1</sup>, Karsten Babin<sup>1</sup>, Miriam Spering<sup>2</sup>, Jody C. Culham<sup>1</sup>; <sup>1</sup>Western University, <sup>2</sup>University of British Columbia

## **Saturday Afternoon Posters in Pavilion**

### **Attention: Affect, threat**

#### **26.401 Do fewer salient events modulate the emotional attentional blink?**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Lindsay A. Santacrose<sup>1</sup> ([lsantacr@central.uh.edu](mailto:lsantacr@central.uh.edu)), Benjamin J. Tamber-Rosenau<sup>1</sup>; <sup>1</sup>University of Houston

#### **26.402 Effects of Emotional Distractors on the Processing of Motion Stimuli**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Changhao Xiong<sup>1</sup> ([xiong.changhao@ufl.edu](mailto:xiong.changhao@ufl.edu)), Ke Bo<sup>2</sup>, Nathan Petro<sup>3</sup>, Andreas Keil<sup>1</sup>, Mingzhou Ding<sup>1</sup>; <sup>1</sup>UNIVERSITY OF FLORIDA, <sup>2</sup>DARTMOUTH COLLEGE, <sup>3</sup>BOYS TOWN NATIONAL RESEARCH HOSPITAL

#### **26.403 Emotional Valence Effects on Facilitation of Cognitive Control**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Sarah B. Malykke<sup>1</sup> ([sarahmalykke@gwu.edu](mailto:sarahmalykke@gwu.edu)), Rebeka C. Almasi<sup>1</sup>, Jini Tae<sup>2</sup>, Yoonhyoung Lee<sup>3</sup>, Myeong-Ho Sohn<sup>1</sup>; <sup>1</sup>The George Washington University, <sup>2</sup>Gwangju Institute of Science and Technology, <sup>3</sup>Yeungnam University

#### **26.404 Failure to replicate an effect of affective state on attentional breadth and attentional blink**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Jeffrey Saunders<sup>1</sup> ([jsaun@hku.hk](mailto:jsaun@hku.hk)), Ho Ming Chan<sup>1</sup>; <sup>1</sup>University of Hong Kong

#### **26.405 Generalization of threat-related attentional priority with visual objects**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Kirsten Moore<sup>1</sup> ([kirstenmoore277@gmail.com](mailto:kirstenmoore277@gmail.com)), Laurent Grégoire<sup>1</sup>, Andrew Clement<sup>1</sup>, Brian Anderson<sup>1</sup>; <sup>1</sup>Texas

A&M University

### **26.406 Inhibition of return (IOR) for negative emotional stimuli: a meta-analysis**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Xiang Li<sup>1</sup> ([xiangli1206@163.com](mailto:xiangli1206@163.com)), Xinqing Xu<sup>1</sup>, Ruihong Liu<sup>1</sup>, Hongwei Sun<sup>1</sup>, Liping Jia<sup>1</sup>, Qianru Xu<sup>2</sup>, Chaoxiong Ye<sup>3</sup>, Kevin Guo<sup>4</sup>, Hong-jin Sun<sup>4</sup>; <sup>1</sup>Weifang Medical University, China, <sup>2</sup>University of Oulu, Finland, <sup>3</sup>University of Jyväskylä, Finland, <sup>4</sup>McMaster University, Canada

### **26.407 Investigating the interaction between affective arousal and luminance in modulating pupil size**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Jasmine Pan<sup>1</sup> ([jasminep@bu.edu](mailto:jasminep@bu.edu)), Michaela Klimova<sup>1</sup>, Joseph McGuire<sup>1</sup>, Sam Ling<sup>1</sup>; <sup>1</sup>Boston University

### **26.408 Neural Processing of Affective Scenes: A Comparison between Convolutional Neural Networks and Human Visual Pathways**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Yujun Chen<sup>1</sup> ([yujunchen@ufl.edu](mailto:yujunchen@ufl.edu)), Lihan Cui<sup>1</sup>, Mingzhou Ding<sup>1</sup>; <sup>1</sup>UNIVERSITY OF FLORIDA

### **26.409 Vicarious learning of threat-related attentional capture**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Laurent Grégoire<sup>1</sup> ([lgregoire1@tamu.edu](mailto:lgregoire1@tamu.edu)), Mirela Dubravac<sup>1</sup>, Kirsten Moore<sup>1</sup>, Namgyun Kim<sup>2</sup>, Brian Anderson<sup>1</sup>; <sup>1</sup>Texas A&M University, <sup>2</sup>University of Dayton

### **26.410 How robust are negative attentional templates?**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Sizhu Han<sup>1</sup> ([sizhu.han@uni-marburg.de](mailto:sizhu.han@uni-marburg.de)), Anna Schubö<sup>1</sup>; <sup>1</sup>Experimental and Biological Psychology, Philipps-Universität Marburg, Marburg, Germany

## **Eye Movements: Perception, remapping**

### **26.411 Peri-saccadic mislocalization in a rhesus macaque monkey depends on the visual appearance of the saccade target**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Matthias Philipp Baumann<sup>1</sup> ([matthias-philipp.baumann@student.uni-tuebingen.de](mailto:matthias-philipp.baumann@student.uni-tuebingen.de)), Ziad Hafed<sup>1</sup>; <sup>1</sup>University of Tübingen

### **26.412 Pre-saccadic modulation of collinear lateral interactions**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Gabriela Mueller de Melo<sup>1</sup>, Isabella de Oliveira Pitorri<sup>1</sup>, Gustavo Rohenkohl<sup>1,2</sup>; <sup>1</sup>Institute of Biosciences, University of São Paulo, São Paulo, Brazil, <sup>2</sup>Ernst Strüngmann Institute (ESI) for Neuroscience in Cooperation with Max Planck Society, Frankfurt, Germany

### **26.413 Post-saccadic impairment of scene perception**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Yong Min Choi<sup>1</sup> ([choi.1696@osu.edu](mailto:choi.1696@osu.edu)), Tzu-Yao Chiu<sup>1</sup>, Julie D. Golomb<sup>1</sup>; <sup>1</sup>Department of Psychology, The Ohio State University

### **26.414 Is trans-retinal integration exclusive to saccades?**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Carolin Hübner<sup>1</sup> ([carolin.huebner@hu-berlin.de](mailto:carolin.huebner@hu-berlin.de)), Martin Rolfs<sup>1</sup>; <sup>1</sup>Department of Psychology, Humboldt-Universität zu Berlin

### **26.415 Robust and saccade-specific feature blanking effect for a wide range of spatial frequencies, sizes and eccentricities**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Lukasz Grzeczowski<sup>1</sup> ([lukasz.grzeczowski@gmail.com](mailto:lukasz.grzeczowski@gmail.com)), Arne Stein<sup>1</sup>, Martin Rolfs<sup>1</sup>; <sup>1</sup>Humboldt-Universität zu Berlin, Germany

### **26.416 Microsaccade rates reflect trial difficulty for perifoveal motion discrimination**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Rania Ezzo<sup>1,2</sup> ([rje257@nyu.edu](mailto:rje257@nyu.edu)), Bogeng Song<sup>1</sup>, Bas Rokers<sup>1,2</sup>, Marisa Carrasco<sup>1</sup>; <sup>1</sup>New York University, <sup>2</sup>New York University Abu Dhabi

### **26.417 The influence of task-irrelevant landmarks on spatiotopic localization and object-location binding**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Zitong Lu<sup>1</sup> ([lu.2637@osu.edu](mailto:lu.2637@osu.edu)), Julie D. Golomb<sup>1</sup>; <sup>1</sup>Department of Psychology, The Ohio State University

### **26.418 Are smooth pursuit eye movements influenced by perceptual experience?**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Loic Daumail<sup>1</sup> ([loic.daumail@vanderbilt.edu](mailto:loic.daumail@vanderbilt.edu)), Zoe Armstrong<sup>1</sup>, Frank Tong<sup>1</sup>; <sup>1</sup>Vanderbilt University

### **26.419 The perceived motion of stimuli moving with, or opposite to, the direction of eye motion**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Josephine D'Angelo<sup>1</sup> ([josephine\\_dangelo@berkeley.edu](mailto:josephine_dangelo@berkeley.edu)), Pavan Tiruveedhula<sup>1</sup>, Raymond J. Weber<sup>2</sup>, David W. Arathorn<sup>2</sup>, Austin Roorda<sup>1</sup>; <sup>1</sup>University of California, Berkeley, <sup>2</sup>Montana State University

### **26.420 Serial dependence in Oculomotor inhibition uncovers stimulus predictability: what, where, and when**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Yahel Shwartz<sup>1</sup> ([yahels222@gmail.com](mailto:yahels222@gmail.com)), Yoram Bonneh<sup>1</sup>; <sup>1</sup>Bar-Ilan University, Ramat Gan, Israel

### **26.421 Motion prediction explains saccadic omission**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Eckart Zimmermann<sup>1</sup> ([eckartzi@gmail.com](mailto:eckartzi@gmail.com)), Antonella Pome<sup>1</sup>; <sup>1</sup>University Düsseldorf

### **26.422 Eye Movements during Free Viewing and Scene Description are Similarly Directed to Objects Critical to Scene Understanding**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Shravan Murlidaran<sup>1</sup> ([smurlidaran@ucsb.edu](mailto:smurlidaran@ucsb.edu)), Miguel P Eckstein<sup>1</sup>; <sup>1</sup>University of California Santa Barbara

### **26.423 Sound-induced pupil dilation response reflects location in auditory space**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Hsin-I Liao<sup>1</sup> ([hsini.liao.pb@hco.ntt.co.jp](mailto:hsini.liao.pb@hco.ntt.co.jp)), Shimpei Yamagishi<sup>1</sup>, Shigeto Furukawa<sup>1</sup>; <sup>1</sup>NTT Communication Science Laboratories

## **Object Recognition: Reading**

### **26.424 Can a gamified, rapid, online assessment of letter encoding ability in kindergarten and first grade children predict future reading development?**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Mahalakshmi Ramamurthy<sup>1</sup> ([maha10@stanford.edu](mailto:maha10@stanford.edu)), Adam Richie-Halford<sup>1</sup>, Klint Kanopka<sup>1</sup>, Andrea Hartsough<sup>2</sup>, Katelyn Osuna<sup>1</sup>, Maria Luisa Gorno-Tempini<sup>2</sup>, Jason D Yeatman<sup>1</sup>; <sup>1</sup>Developmental-behavioral Pediatrics, School of Medicine & Graduate School of Education, Stanford University, CA, USA., <sup>2</sup>Weill Institute for Neurosciences, University of California, San Francisco, CA, USA.

### **26.425 Diverse reading themes for readability**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Tianyuan Cai<sup>1</sup>, Aleena Niklaus<sup>1</sup>, Michael Kraley<sup>1</sup>, Bernard Kerr<sup>1</sup>, Zoya Bylinskii<sup>1</sup>; <sup>1</sup>Adobe Inc.

### **26.426 How reading acquisition changes the landscape of the function within the visual word form area**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Jin Li<sup>1</sup> ([li.9361@buckeyemail.osu.edu](mailto:li.9361@buckeyemail.osu.edu)), Patricia Stefancin-Resnick<sup>1</sup>, Zeynep Saygin<sup>1</sup>; <sup>1</sup>The Ohio State University

### **26.427 Interacting effects of stimulus familiarity, attention and language in the visual word form area**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Vassiki Chauhan<sup>1</sup> ([vchauhan@barnard.edu](mailto:vchauhan@barnard.edu)), Krystal McCook<sup>1</sup>, Alex White<sup>1</sup>; <sup>1</sup>Barnard College, Columbia University

### **26.428 Psychophysics of variable fonts: Gaze measures of reading efficiency**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Zainab Haseeb<sup>1</sup> ([zainab.haseeb@mail.utoronto.ca](mailto:zainab.haseeb@mail.utoronto.ca)), Silvia Guidi<sup>1</sup>, Benjamin Wolfe<sup>1</sup>, Anna Kosovicheva<sup>1</sup>; <sup>1</sup>University of Toronto Mississauga

### **26.429 Psychophysics of variable fonts: Speed and comprehension measures**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Silvia Guidi<sup>1</sup> ([s.guidi@mail.utoronto.ca](mailto:s.guidi@mail.utoronto.ca)), Zainab Haseeb<sup>1</sup>, Anna Kosovicheva<sup>1</sup>, Benjamin Wolfe<sup>1</sup>; <sup>1</sup>University of Toronto Mississauga

### **26.430 RSVP reading speed varies two-fold across fonts, in inverse proportion to**



## crowding distance

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Denis G. Pelli<sup>1</sup> ([denis.pelli@nyu.edu](mailto:denis.pelli@nyu.edu)), Jan Kurzwaski<sup>1</sup>, Augustin Burchell, Najib J. Majaj<sup>1</sup>; <sup>1</sup>New York University

## 26.431 Semantically related Korean words can be processed in parallel

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Sang-Ah Yoo<sup>1</sup> ([singahy@gmail.com](mailto:singahy@gmail.com)), Sung Jun Joo<sup>1</sup>; <sup>1</sup>Pusan National University

## 26.432 The spatiotemporal dynamics of letter processing in visual word recognition elucidated by random temporal sampling

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Martin Arguin<sup>1,2</sup> ([martin.argin@umontreal.ca](mailto:martin.argin@umontreal.ca)), Simon Fortier-St-Pierre<sup>1</sup>; <sup>1</sup>Universite de Montreal, <sup>2</sup>Centre de recherche, Institut Universitaire de Gériatrie de Montréal

## 26.433 The visual word form area engages in processing Braille in expert visual readers

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Filippo Cerpelloni<sup>1,2</sup> ([filippo.cerpelloni@kuleuven.be](mailto:filippo.cerpelloni@kuleuven.be)), Alice Van Audenhaege<sup>1</sup>, Ceren Battal<sup>1</sup>, Remi Gau<sup>1</sup>, Federica Falagiarda<sup>1</sup>, Hans Op de Beeck<sup>2\*</sup>, Olivier Collignon<sup>1,3,4\*</sup>; <sup>1</sup>Institute of Psychology (IPSY) and Institute of Neuroscience (IoNS), University of Louvain, Belgium, <sup>2</sup>Brain and Cognition, Leuven Brain Institute, KU Leuven, Belgium, <sup>3</sup>Center for Mind/Brain Sciences (CIMeC), University of Trento, Italy, <sup>4</sup>The Sense Innovation and Research Center, School of Health Sciences, HES-SO Valais-Wallis, Lausanne and Sion, Switzerland

## 26.434 Visual Word Recognition in Text Prediction Users and Non-Users

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Timurhan Djedilbaev<sup>1</sup>, Maria Falikman; <sup>1</sup>Delft University of Technology, <sup>2</sup>The University of the South

## Binocular Vision: Disparity processing

### 26.436 Are crossed and uncrossed disparities processed by the same mechanism?

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Penghan Wang<sup>1</sup>, Alexandre Reynaud<sup>1</sup>, Robert Hess<sup>1</sup>; <sup>1</sup>McGill University

### 26.438 Global versus local internal disparity noise in stereovision

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Jian Ding<sup>1</sup> ([jian.ding@berkeley.edu](mailto:jian.ding@berkeley.edu)), Hilary Lu<sup>1</sup>, Kaiona Martinson<sup>1</sup>, Eleanor Ball<sup>1</sup>, Nicholette Touserkani<sup>1</sup>, Dennis Levi<sup>1</sup>; <sup>1</sup>Herbert Wertheim School of Optometry, University of California, Berkeley

### 26.439 Stereopsis from interocular temporal delay: disentangling the effects of target versus background luminance

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Takahiro Doi<sup>1</sup> ([takadoi@meta.com](mailto:takadoi@meta.com)), Laurie Wilcox<sup>2</sup>, T. Scott Murdison<sup>1</sup>; <sup>1</sup>Reality Labs, Meta Platforms Inc., <sup>2</sup>Department of Psychology, Centre for Vision Research, York University, Toronto

## 26.440 Efficient Coding Predicts Changes in Motion-in-Depth Speed Judgements

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Lauren Murray<sup>1</sup> ([l.n.murray@stir.ac.uk](mailto:l.n.murray@stir.ac.uk)), Ross Goutcher<sup>1</sup>; <sup>1</sup>University of Stirling

## 26.441 Characterizing frontoparallel stereoscopic motion by measuring duration thresholds

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Ignacio Serrano-Pedraza<sup>1,2</sup> ([iserrano@ucm.es](mailto:iserrano@ucm.es)), Ichasus Llamas-Cornejo<sup>1</sup>; <sup>1</sup>Department of Experimental Psychology, Universidad Complutense de Madrid, Madrid, 28223, Spain, <sup>2</sup>Centre for Behaviour and Evolution, Newcastle University, Newcastle upon Tyne, NE2 4HH, UK

## 3D: Cues and integration

### 26.442 A different point of view: The entrance pupil, not the nodal point, is the center of projection

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Jacob Duijnhouwer<sup>1</sup>, Kristina Uhlendorf<sup>1</sup>, Gerrit W Maus<sup>1</sup>, Jenny C A Read<sup>2</sup>; <sup>1</sup>Magic Leap, Inc., <sup>2</sup>Newcastle University

### 26.443 The disparity gradient limit has limited relevance to natural environments

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Arleen Aksay<sup>1</sup> ([aaksay@yorku.ca](mailto:aaksay@yorku.ca)), Laurie M. Wilcox<sup>1</sup>; <sup>1</sup>York University

### 26.444 Just-Noticeable Differences do not reflect depth cue uncertainty: Evidence from depth discrimination between motion and disparity stimuli

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Jovan Kemp<sup>1</sup> ([jovan\\_kemp@brown.edu](mailto:jovan_kemp@brown.edu)), Fulvio Domini<sup>1</sup>; <sup>1</sup>Brown University

### 26.445 A Prior for Convexity can Override the Rigidity Assumption in Structure-From-Motion

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Ryne Choi<sup>1,2</sup> ([ryne.choi@rutgers.edu](mailto:ryne.choi@rutgers.edu)), Jacob Feldman<sup>1,2</sup>, Manish Singh<sup>1,2</sup>; <sup>1</sup>Rutgers University, Department of Psychology, <sup>2</sup>Rutgers University, Center for Cognitive Science

### 26.446 What changes after visuomotor training? Cue reweighting may in fact be cue recalibration

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Ailin Deng<sup>1</sup> ([dengailin@gmail.com](mailto:dengailin@gmail.com)), Fulvio Domini<sup>2</sup>; <sup>1</sup>Brown University

## Perception and Action

### 26.447 Action-response mode modulates go/no-go decision accuracy

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Philipp Kreyenmeier<sup>1</sup> ([philipp.kreyenmeier@googlemail.com](mailto:philipp.kreyenmeier@googlemail.com)), Miriam Spring<sup>1</sup>, Jolande Fooker<sup>2</sup>; <sup>1</sup>University of

British Columbia, Vancouver, Canada, <sup>2</sup>Queen's University, Kingston, Canada

### **26.448 Motion intention is insufficient for serial temporal dependencies in a go/no-go process**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Mitra Taghizadeh Sarabi<sup>1</sup>, Clara Fritz<sup>1</sup>, Nadine Schlichting<sup>1</sup>, Eckart Zimmermann<sup>1</sup>; <sup>1</sup>Institute for Experimental Psychology, Heinrich Heine University Düsseldorf, Germany

### **26.449 Why does what you're moving affect how fast you search?**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Emily M Crowe<sup>1,2</sup> ([e.m.crowe@vu.nl](mailto:e.m.crowe@vu.nl)), Danai T Vorgia<sup>2</sup>, Eli Brenner<sup>2</sup>; <sup>1</sup>University of Nottingham, <sup>2</sup>Vrije Universiteit Amsterdam

### **26.450 Sensorimotor Synchronization to External and Imagined Visual Stimuli**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Fang Jiang<sup>1</sup> ([fangj@unr.edu](mailto:fangj@unr.edu)), Benjamin Sreenan<sup>1</sup>, Simon Whitton<sup>1</sup>; <sup>1</sup>UNR

### **26.451 Effects of motor preparation on category-specific representations in human cortex**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Canhuang Luo<sup>1</sup>, Edward Ester<sup>1</sup>; <sup>1</sup>University of Nevada, Reno

### **26.452 The influence of active tracing on shape representation in visual pathways**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Guy Baratz<sup>1</sup> ([guybaratz@mail.tau.ac.il](mailto:guybaratz@mail.tau.ac.il)), Batel Buaron<sup>1</sup>, Roy Mukamel<sup>1</sup>; <sup>1</sup>Tel Aviv University

### **26.453 Visually guided (joint) action in a novel ball-and-beam task**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Marijn Hafkamp<sup>1</sup> ([marijn.hafkamp@univ-amu.fr](mailto:marijn.hafkamp@univ-amu.fr)), Remy Casanova<sup>1</sup>, Reinoud J. Bootsma<sup>1</sup>; <sup>1</sup>Aix-Marseille University

### **26.454 Neural bases of attentional contexts that mediate visuomotor adaptation**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Hee Yeon Im<sup>1</sup> ([heeyeon.im@ubc.ca](mailto:heeyeon.im@ubc.ca)), Joo-Hyun Song<sup>2</sup>; <sup>1</sup>University of British Columbia, <sup>2</sup>Brown University

### **26.455 The locus of flanker congruency effects: Insights from Bayesian modelling and a choice reaching flanker task using random dot kinematograms.**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Jordan Deakin<sup>1</sup>, Alexander Daskalopoulos<sup>2</sup>, Mukesh Makwana<sup>2</sup>, Joo-Hyun Song<sup>2</sup>, Dietmar Heinke<sup>1</sup>; <sup>1</sup>University of Birmingham, <sup>2</sup>Brown University

### **26.456 Intention as Hierarchical Constraints in Human Planning**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Jingyin Zhu<sup>1</sup> ([zhuji@zju.edu.cn](mailto:zhuji@zju.edu.cn)), Shaozhe Cheng<sup>1</sup>, Tao Gao<sup>2</sup>, Mowei Shen<sup>1</sup>, Jifan Zhou<sup>1</sup>; <sup>1</sup>Department of Human

Behavior and Psychological Sciences, Zhejiang University, <sup>2</sup>Departments of Communication and Statistics, UCLA

### **26.457 A Simplified Model of Motor Control**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Kabir Arora<sup>1,2</sup>, Samit Chakrabarty<sup>1</sup>; <sup>1</sup>University of Leeds, Leeds, United Kingdom, <sup>2</sup>Utrecht University, Utrecht, The Netherlands

### **26.458 Strong evidence against number adaptation**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Sami Yousif<sup>1</sup> ([sryousif@sas.upenn.edu](mailto:sryousif@sas.upenn.edu)), Sam Clarke<sup>1</sup>, Elizabeth Brannon<sup>1</sup>; <sup>1</sup>University of Pennsylvania

## **Spatial Vision: Crowding and eccentricity**

### **26.459 Metacognitive monitoring of the perceptual resolution across and around the visual field**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Cheongil Kim<sup>1</sup> ([kimcheongil@gmail.com](mailto:kimcheongil@gmail.com)), Sang Chul Chong<sup>1</sup>; <sup>1</sup>Yonsei University

### **26.460 Hemifield Asymmetries in Crowding**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Nicole L. Oppenheimer<sup>1</sup> ([noppenhe@barnard.edu](mailto:noppenhe@barnard.edu)), Anishka Yerabothu<sup>1</sup>, Alex L. White<sup>1</sup>; <sup>1</sup>Barnard College, Columbia University

### **26.461 Exploring perceptual sensitivity and response bias in the visual periphery**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Joseph Pruitt<sup>1</sup> ([josephpruitt@ufl.edu](mailto:josephpruitt@ufl.edu)), Trevor Caruso<sup>1</sup>, Brian Odegaard<sup>1</sup>; <sup>1</sup>University of Florida

### **26.462 Does your old clutter measure spark joy?**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Ruth Rosenholtz<sup>1</sup> ([rruth@mit.edu](mailto:rruth@mit.edu)); <sup>1</sup>NVIDIA, MIT

### **26.463 An enhanced Bouma model fits fifty people's visual crowding**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Jan Kurzwaski<sup>1</sup> ([jan.kurzwaski@gmail.com](mailto:jan.kurzwaski@gmail.com)), Najib Majaj<sup>2</sup>, Jonathan Winawer<sup>3</sup>, Denis Pelli<sup>4</sup>; <sup>1</sup>New York University

### **26.464 Pop-out and crowding effect in adults with ADHD**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Hani Tsruya<sup>1</sup> ([hanifrah75@gmail.com](mailto:hanifrah75@gmail.com)), Maria Lev, Uri Polat; <sup>1</sup>Bar ilan university

### **26.465 Interactions of crowding, overlap masking and surround suppression**

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Susana Chung<sup>1</sup> ([s.chung@berkeley.edu](mailto:s.chung@berkeley.edu)), Charles Ang<sup>1</sup>, Daniel Coates<sup>2</sup>; <sup>1</sup>University of California, Berkeley, <sup>2</sup>University of Houston

### **26.466 Cortical magnification, not summary statistics, explains information loss in**

## peripheral vision

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Rachel Heaton<sup>1</sup> ([rmflood2@illinois.edu](mailto:rmflood2@illinois.edu)), John Hummel<sup>1</sup>, Alejandro Lleras<sup>1</sup>, Simona Buetti<sup>1</sup>; <sup>1</sup>University of Illinois Urbana-Champaign

## 26.467 Does pre-microsaccadic remapping alter parafoveal crowding zones?

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Krish Prahalad<sup>1</sup> ([pskrishn@central.uh.edu](mailto:pskrishn@central.uh.edu)), Daniel Coates<sup>1</sup>; <sup>1</sup>University of Houston College of Optometry, Houston, TX, United States

## 26.468 Information compression determines the appearance of repeating patterns in peripheral vision

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Sabrina Hansmann-Roth<sup>1</sup>, Bilge Sayim<sup>2,3</sup>; <sup>1</sup>University of Iceland, <sup>2</sup>Université de Lille, <sup>3</sup>University of Bern

## 26.469 Can crowding distance be measured using standard letters in young children?

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Sarah J Waugh<sup>1</sup> ([s.j.waugh@hud.ac.uk](mailto:s.j.waugh@hud.ac.uk)), Monika A Formankiewicz<sup>2</sup>; <sup>1</sup>University of Huddersfield, <sup>2</sup>Anglia Ruskin University

## 26.470 Featural representation underlies performance differences around the visual field

*Saturday, May 20, 2023, 2:45 – 6:45 pm, Pavilion*

Shutian Xue<sup>1</sup> ([shutian.xue@nyu.edu](mailto:shutian.xue@nyu.edu)), Marisa Carrasco<sup>1,2</sup>; <sup>1</sup>Department of Psychology, New York University, New York, United States, <sup>2</sup>Center for Neural Science, New York University, New York, United States

# Sunday Morning Posters in Banyan Breezeway

## Attention: Spatial

### 33.301 Spatial attention alters BOLD activity and population receptive fields in visual cortex

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Ekin Tünçok<sup>1</sup>, Marisa Carrasco<sup>1</sup>, Jonathan Winawer<sup>1</sup>; <sup>1</sup>New York University

### 33.302 Assessing the Role of the Pulvinar in Feature versus Spatial Attention Control using Deep Neural Networks

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Yun Liang<sup>1</sup> ([yunliang@ufl.edu](mailto:yunliang@ufl.edu)), Sreenivasan Meyyappan<sup>2</sup>, Mingzhou Ding<sup>1</sup>; <sup>1</sup>University of Florida, <sup>2</sup>University of California, Davis

### 33.303 Visuospatial Attention and Discrimination of Oriented Gabor Patches in Children as a Function of Birth Experience

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Ivy Chau<sup>1</sup> ([ivy Chau@yorku.ca](mailto:ivy Chau@yorku.ca)), Shir Bach-Kay<sup>1</sup>, Audrey Wong-Kee-You<sup>2</sup>, Scott Adler<sup>1</sup>; <sup>1</sup>York University, <sup>2</sup>Smith-Kettlewell Eye Institute

### **33.304 Effect of focused and distributed attention on stimulus representations in neural priority maps**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Amelia H. Harrison<sup>1</sup> ([aharrison@ucsb.edu](mailto:aharrison@ucsb.edu)), Daniel D. Thayer<sup>1</sup>, Thomas C. Sprague<sup>1</sup>; <sup>1</sup>UC Santa Barbara

### **33.306 Measuring visual attention to online videos with a mouse cursor window paradigm: considerations for large scale data collection**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Karissa Payne<sup>1</sup> ([karipayne@ksu.edu](mailto:karipayne@ksu.edu)), Brian Howatt<sup>1</sup>, Sahand Shaghghi<sup>2</sup>, Lester Loschky<sup>1</sup>; <sup>1</sup>Kansas State University, <sup>2</sup>University of Waterloo

### **33.307 Visual attention flows downhill**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Alex Mitko<sup>1</sup> ([amitko1@jh.edu](mailto:amitko1@jh.edu)), Jason Fischer<sup>1</sup>; <sup>1</sup>Johns Hopkins University

### **33.308 Neural correlates of the effect of attention on surround suppression**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Merve Kiniklioğlu<sup>1,2</sup> ([mervekiniklioglu@gmail.com](mailto:mervekiniklioglu@gmail.com)), Hüseyin Boyacı<sup>1,2,3,4</sup>; <sup>1</sup>Interdisciplinary Neuroscience Program, Bilkent University, <sup>2</sup>National Magnetic Resonance Research Center (UMRAM), Bilkent University, <sup>3</sup>Department of Psychology, Bilkent University, <sup>4</sup>Department of Psychology, J.L. Giessen University, Germany

### **33.309 Visual Statistical Learning of Attentional Distractors Persists Over Several Days**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Brooke Greiner<sup>1</sup> ([bgreiner@mcw.edu](mailto:bgreiner@mcw.edu)), Gennadiy Gurariy<sup>1</sup>, Christine Larson<sup>2</sup>, Adam S. Greenberg<sup>1</sup>; <sup>1</sup>Medical College of Wisconsin, <sup>2</sup>University of Wisconsin-Milwaukee

### **33.310 Visual Spatial Attention Both Enhances and Suppresses Neuronal Responses in Visual Cortex**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Qiang Yang<sup>1</sup> ([yang.qiang@ufl.edu](mailto:yang.qiang@ufl.edu)), Sreenivasan Meyyappan<sup>2</sup>, George R. Mangun<sup>2</sup>, Mingzhou Ding<sup>1</sup>; <sup>1</sup>University of Florida, <sup>2</sup>University of California Davis

### **33.311 From human frontal eye fields to early visual cortex: Probing the role of feedback in presaccadic attention with Transcranial Magnetic Stimulation (TMS)**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Nina Hanning<sup>1,2</sup> ([hanning.nina@gmail.com](mailto:hanning.nina@gmail.com)), Antonio Fernández<sup>1</sup>, Marisa Carrasco<sup>1</sup>; <sup>1</sup>New York University, <sup>2</sup>Humboldt Universität zu Berlin

### **33.312 The joint contribution of statistical learning effects and bottom-up signals to the setting of attentional priorities**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Carola Dolci<sup>1</sup> ([carola.dolci@univr.it](mailto:carola.dolci@univr.it)), Einat Rashal<sup>2</sup>, Suliann Ben-Hamed<sup>3</sup>, C. Nico Boehler<sup>2</sup>, Emiliano Macaluso<sup>4</sup>, Leonardo Chelazzi<sup>1</sup>, Elisa Santandrea<sup>1</sup>; <sup>1</sup>University of Verona, <sup>2</sup>University of Ghent, <sup>3</sup>Institut des Sciences Cognitives Marc-Jeannerod, Lyon, France, <sup>4</sup>Lyon Neuroscience Research Center, Lyon, France

## Face Perception: Experience, learning, and expertise

### 33.313 Concealed familiar face detection with oculomotor measures and EEG in rapid serial visual presentation

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Ivory Y. Chen<sup>1</sup>, Aytaç Karabay<sup>1</sup>, Sebastiaan Mathôt<sup>1</sup>, Philipp K. Büchel<sup>1</sup>, Robbert van der Mijl<sup>1</sup>, Howard Bowman<sup>2,3</sup>, Elkan G. Akyürek<sup>1</sup>; <sup>1</sup>Department of Experimental Psychology, University of Groningen, Groningen, the Netherlands, <sup>2</sup>School of Psychology, University of Birmingham, UK, <sup>3</sup>School of Computing, University of Kent, UK

### 33.314 Real-world familiarization: Faces become familiar through short-term naturalistic exposure

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Menahal Latif<sup>1</sup> ([menahal.latif@ryerson.ca](mailto:menahal.latif@ryerson.ca)), Margaret Moulson<sup>1</sup>; <sup>1</sup>Toronto Metropolitan University

### 33.315 Designing an “Other Race Effect” test for forensic facial identification experts using the performance of deep networks and untrained humans.

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Kate Marquis<sup>1</sup> ([kate\\_marquis@yahoo.com](mailto:kate_marquis@yahoo.com)), Selin Yavuzcan<sup>1</sup>, Géraldine Jeckeln<sup>1</sup>, Amy Yates<sup>2</sup>, P. Jonathon Phillips<sup>2</sup>, Alice O'Toole<sup>1</sup>; <sup>1</sup>The University of Texas at Dallas, <sup>2</sup>National Institute of Standards and Technology

### 33.316 The Role of Instructional Motivation and Stimulus Properties on Other-Race Effects

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Cindy M. Bukach<sup>1</sup> ([cbukach@richmond.edu](mailto:cbukach@richmond.edu)), Brianna Charlton<sup>1</sup>, Pascaline Munezero<sup>1</sup>, Erin Hudgee<sup>1</sup>, Natalie Benham<sup>1</sup>, Patrick Sutphin<sup>1</sup>, Maruti Mishra<sup>1</sup>; <sup>1</sup>University of Richmond

### 33.317 Not the norm: Face likeness is not the same as similarity to familiar face prototypes.

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Benjamin Balas<sup>1</sup> ([benjamin.balas@ndsu.edu](mailto:benjamin.balas@ndsu.edu)), Adam Sandford<sup>2</sup>, Kay Ritchie<sup>3</sup>; <sup>1</sup>North Dakota State University, <sup>2</sup>University of Guelph-Humber, <sup>3</sup>University of Lincoln

### 33.318 Scene context affects face discrimination

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Elissa Aminoff<sup>1</sup> ([eaminoff@fordham.edu](mailto:eaminoff@fordham.edu)), Shira Baror<sup>2</sup>; <sup>1</sup>Fordham University, <sup>2</sup>Hebrew University

### 33.319 Scene Previews Facilitate Face Detection Behavior

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Sule Tasliyurt Celebi<sup>1</sup> ([sule.tasliyurt-celebi@psychol.uni-giessen.de](mailto:sule.tasliyurt-celebi@psychol.uni-giessen.de)), Benjamin de Haas<sup>1,2</sup>, Katharina Dobs<sup>1,2</sup>;

<sup>1</sup>Justus Liebig University of Giessen, <sup>2</sup>Center for Mind, Brain and Behavior (CMBB), Marburg

### **33.320 The Effects of Horizontal Bias Training on Face Identification**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Jamie G.E. Cochrane<sup>1</sup> ([cochrj1@mcmaster.ca](mailto:cochrj1@mcmaster.ca)), Ali Hashemi<sup>1</sup>, Anastasia Gaykalova<sup>1</sup>, Kayla Mateus<sup>1</sup>, Eugenie Roudaia<sup>2</sup>, Allison B. Sekuler<sup>1,2,3</sup>, Patrick J. Bennett<sup>1</sup>; <sup>1</sup>Department of Psychology, Neuroscience & Behaviour, McMaster University, <sup>2</sup>Rotman Research Institute, Baycrest, <sup>3</sup>Department of Psychology, University of Toronto

### **33.321 Using Online Testing to Measure Spatial Frequency and Orientation Tuning in Face Processing**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Francis Gingras<sup>1,2</sup> ([francis.gingras16@gmail.com](mailto:francis.gingras16@gmail.com)), Justin Duncan<sup>2</sup>, Frédéric Gosselin<sup>3</sup>, Daniel Fiset<sup>2</sup>, Caroline Blais<sup>2</sup>; <sup>1</sup>Université du Québec à Montréal, <sup>2</sup>Université du Québec en Outaouais, <sup>3</sup>Université de Montréal

### **33.322 What is the effective resolution of the retinal image of a distant face?**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Suayb S. Arslan<sup>1</sup> ([sarslan@mit.edu](mailto:sarslan@mit.edu)), Michal Fux<sup>1</sup>, Pawan Sinha<sup>1</sup>; <sup>1</sup>Massachusetts Institute of Technology

### **33.323 An anatomically-constrained model of the primate visual system explains the inverted face effect as a function of expertise and suggests it arises at the level of V1**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Garrison Cottrell<sup>1</sup> ([gary@ucsd.edu](mailto:gary@ucsd.edu)), Martha Gahl<sup>1</sup>, Shubham Kulkarni<sup>1</sup>, Alex Russell<sup>1</sup>; <sup>1</sup>UCSD

## **Visual Search: Eye movements, attention, individual differences**

### **33.324 Where's Waldo? Exploring Gaze Strategy in a Visual Search Task Online and In-Person**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Amy vanWell<sup>1</sup> ([amyvanwell@gmail.com](mailto:amyvanwell@gmail.com)), James Tanaka<sup>1</sup>; <sup>1</sup>University of Victoria

### **33.325 Visual Search Patterns in Cerebral Visual Impairment (CVI) Are Driven by Saliency Cues When Exploring Naturalistic Scenes**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Claire Manley<sup>1</sup> ([cemanley@meei.harvard.edu](mailto:cemanley@meei.harvard.edu)), Kerri Walter<sup>2</sup>, Peter Bex<sup>2</sup>, Lotfi Merabet<sup>1</sup>; <sup>1</sup>Mass. Eye and Ear, <sup>2</sup>Northeastern University

### **33.326 Hard to ignore? Irrelevant distractors cannot be completely suppressed in a contextual cueing task.**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

M Pilar Aivar<sup>1</sup> ([maripilar.aivar@uam.es](mailto:maripilar.aivar@uam.es)), Ricardo Rey-Sáez<sup>1</sup>, Miguel A Vadillo<sup>1</sup>; <sup>1</sup>Universidad Autónoma de Madrid (Madrid, Spain)

### **33.327 Salient targets don't catch your eye during extended field-of-view visual search**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*



Niklas Stein<sup>1</sup> ([niklas.stein@uni-muenster.de](mailto:niklas.stein@uni-muenster.de)), Tamara Watson<sup>2</sup>, Maren Westendorf<sup>1</sup>, Szonya Durant<sup>3</sup>, Markus Lappe<sup>1</sup>; <sup>1</sup>University of Muenster, <sup>2</sup>Western Sydney University, <sup>3</sup>University of London

### **33.328 Sufficient eye movement coverage of the 2D image plane might mediate under-exploration in 3D search**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Devi Klein<sup>1</sup> ([dklein@ucsb.edu](mailto:dklein@ucsb.edu)), Miguel P. Eckstein<sup>1</sup>; <sup>1</sup>UCSB

### **33.329 Expected Distractor Context Biases the Attentional Template for Target Shapes**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Maëlle Lerebourg<sup>1</sup> ([maelle.lerebourg@donders.ru.nl](mailto:maelle.lerebourg@donders.ru.nl)), Floris de Lange<sup>1</sup>, Marius V. Peelen<sup>1</sup>; <sup>1</sup>Donders Institute for Brain, Cognition & Behaviour

### **33.330 How Blind is Inattentional Blindness in Mixed Hybrid search?**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Ava Mitra<sup>1</sup>, Jeremy Wolfe<sup>1,2</sup>; <sup>1</sup>Brigham and Women's Hospital, <sup>2</sup>Harvard Medical School

### **33.331 Carryover and spatial bias effects in Trail Making Test Part A sequential visual search**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Keith D. White<sup>1,2</sup> ([kdwhite@ufl.edu](mailto:kdwhite@ufl.edu)), Ben Chapin<sup>1</sup>, Matthew Schiefer<sup>1,2</sup>, John Williamson<sup>1,2</sup>, Ira Fischler<sup>1</sup>, Alexandra Campbell<sup>1</sup>, Kenneth M. Heilman<sup>1</sup>; <sup>1</sup>University of Florida, Gainesville, <sup>2</sup>Brain Rehabilitation Research Center, NF/SG Veterans' Health System Medical Center, Gainesville FL

### **33.332 Probabilistic attentional selection during continuous visual search**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Jennifer Magerl Fuller<sup>1</sup> ([jcm3@hi.is](mailto:jcm3@hi.is)), Vladislav Khvostov<sup>2</sup>, Árni Kristjánsson<sup>3</sup>, Árni Gunnar Ásgeirsson<sup>4</sup>; <sup>1</sup>University of Iceland

### **33.333 Research on re-search: Foraging in the same patch twice**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Injae Hong<sup>1</sup> ([ihong1@bwh.harvard.edu](mailto:ihong1@bwh.harvard.edu)), Jeremy M. Wolfe<sup>1,2</sup>; <sup>1</sup>Brigham & Women's Hospital, <sup>2</sup>Harvard Medical School

### **33.334 Task design effects on negative search templates**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Michael Mugno<sup>1</sup> ([mikemugno518@gmail.com](mailto:mikemugno518@gmail.com)), A. Caglar Tas<sup>1</sup>; <sup>1</sup>University of Tennessee, Knoxville

### **33.335 How does color distribution learning affect oculomotor selection?**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Léa ENTZMANN<sup>1</sup> ([leaentzmann@hi.is](mailto:leaentzmann@hi.is)), Árni Gunnar Ásgeirsson<sup>2</sup>, Árni Kristjánsson<sup>1</sup>; <sup>1</sup>Icelandic Vision Lab, University of Iceland, <sup>2</sup>University of Akureyri, Iceland

### **33.336 None to rule them all? No generalization of saliency models across age**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Christoph Strauch<sup>1</sup> ([c.strauch@uu.nl](mailto:c.strauch@uu.nl)), Alex J Hoogerbrugge<sup>1</sup>, Gregor Baer<sup>1</sup>, Ignace T C Hooge<sup>1</sup>, Sjoerd M Stuit<sup>1</sup>, Tanja C W Nijboer<sup>1</sup>, Stefan Van der Stigchel<sup>1</sup>; <sup>1</sup>Utrecht University

### **33.337 Impacts of Posttraumatic Stress Disorder on Eye-Movement during Visual Search in an Open Virtual Environment under High and Low Stress Conditions**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Leah Enders<sup>1</sup> ([lenders@dcscorp.com](mailto:lenders@dcscorp.com)), Heather Roy<sup>2</sup>, Thomas Rohaly<sup>1</sup>, Angela Jeter<sup>1</sup>, Jessica Villarreal<sup>1</sup>; <sup>1</sup>DCS Corp., Alexandria, VA USA, <sup>2</sup>DEVCOM Army Research Laboratory, Aberdeen Proving Ground, MD USA

## **Attention: Cueing, inattention**

### **33.338 When your ice-cream is looking somewhere: Gaze cueing from human faces and inanimate objects**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Maria Falikman<sup>1</sup>, Tatiana Shevel<sup>2</sup>; <sup>1</sup>The University of The South, <sup>2</sup>HSE University, Moscow

### **33.339 What do the inattentionally blind see? Evidence from 10,000 subjects**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Makaela Nartker<sup>1</sup>, Chaz Firestone<sup>1</sup>, Howard Egeth<sup>1</sup>, Ian Phillips<sup>1</sup>; <sup>1</sup>Johns Hopkins University

### **33.340 Adaptive control of attentional gating and visual awareness during the attentional blink**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Shuyao Wang<sup>1</sup> ([shuyao.wang@rug.nl](mailto:shuyao.wang@rug.nl)), Aytaç Karabay<sup>1,2</sup>, Elkan G. Akyürek<sup>1</sup>; <sup>1</sup>University of Groningen, <sup>2</sup>New York University Abu Dhabi

### **33.341 Testing the Memory Encoding Cost Theory: A multiple cues experiment**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Chenxiao Guan<sup>1</sup> ([chenxiaoguan@zju.edu.cn](mailto:chenxiaoguan@zju.edu.cn)), Luo Chen<sup>1</sup>, Huixing Song<sup>1</sup>, Jian Li<sup>1</sup>, Xiaoqi Huang<sup>1</sup>, Mowei Shen<sup>1</sup>, Hui Chen<sup>1</sup>; <sup>1</sup>Zhejiang University

### **33.342 When should you warn the driver about the moose?: The effect of auditory cue timing on hazard localization in naturalistic videos**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Jiali Song<sup>1</sup> ([jjiali.song11@gmail.com](mailto:jjiali.song11@gmail.com)), Avery H. Chua<sup>1</sup>, Meghna Patil<sup>1</sup>, Anna Kosovicheva<sup>1</sup>, Benjamin Wolfe<sup>1</sup>; <sup>1</sup>University of Toronto Mississauga

### **33.343 Scotoma awareness: a novel protocol to induce fast development of a Preferred retinal locus (PRL) in patients with central vision loss**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Marcello Maniglia<sup>1</sup> ([mmanig@ucr.edu](mailto:mmanig@ucr.edu)), Jason Vice<sup>2</sup>, Kristina Visscher<sup>2</sup>, Aaron Seitz<sup>1</sup>; <sup>1</sup>University of California, Riverside, <sup>2</sup>University of Alabama at Birmingham,

### **33.344 Exploring the effects of visual cue complexity on foot placement accuracy in a targeted stepping task**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Benjamin Kissack<sup>1</sup> ([bkissack@uoguelph.ca](mailto:bkissack@uoguelph.ca)), Kate Fitzpatrick<sup>1</sup>, Lori Ann Vallis<sup>1</sup>; <sup>1</sup>University of Guelph, Department of Human Health and Nutritional Sciences

### **33.345 Do Audiovisual Semantic Congruency Effects Exist Without Visual Awareness?**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Kun Zhou<sup>1</sup> ([xiaofolanyang@gmail.com](mailto:xiaofolanyang@gmail.com)), Jan Drewes<sup>2</sup>, Weina Zhu<sup>1</sup>; <sup>1</sup>School of Information Science, Yunnan University, 650091 Kunming, China, <sup>2</sup>Institute of Brain and Psychological Science, Sichuan Normal University, 610066 Chengdu, China

### **33.346 Near-space advantage in a simulated 3D environment: an inhibition of return (IOR) study**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Noah Britt<sup>1</sup> ([brittn@mcmaster.ca](mailto:brittn@mcmaster.ca)), Hanna Haponenko<sup>1</sup>, Hong-jin Sun<sup>1</sup>; <sup>1</sup>McMaster University

### **33.347 Cold exposure enhances visual responses in human cortex**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Caitlin Gregory<sup>1</sup> ([caitlingregory@ucsb.edu](mailto:caitlingregory@ucsb.edu)), Tom Bullock<sup>1</sup>, Emily Machniak<sup>1</sup>, Viktoriya Babenko<sup>1</sup>, Michael Miller<sup>1</sup>, Scott Grafton<sup>1</sup>, Barry Giesbrecht<sup>1</sup>; <sup>1</sup>UC Santa Barbara

### **33.348 Examining the Impact of Acetaminophen on Early Attentional Processing of Emotional Images**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Felicity Woodson<sup>1</sup> ([fwoodson@tamu.edu](mailto:fwoodson@tamu.edu)), Ming-Ray Liao<sup>1</sup>, Brian A. Anderson<sup>1</sup>; <sup>1</sup>Texas A&M University

### **33.349 Predicting a Volitional Eye Movement Before a Visual Search: An Investigation of Overt Willed Attention**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

John Nadra<sup>1,2</sup> ([jnadra@ucdavis.edu](mailto:jnadra@ucdavis.edu)), Jesse Bengson<sup>2</sup>, Mingzhou Ding<sup>3</sup>, George Mangun<sup>1,2</sup>; <sup>1</sup>University of California, Davis, <sup>2</sup>Center for Mind and Brain, Davis, CA, <sup>3</sup>University of Florida

### **33.350 The difference between social attention and non-social attention lies in attention disengagement rather than attention orientation**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Shengyuan Wang<sup>1</sup> ([wangshy56@mail2.sysu.edu.cn](mailto:wangshy56@mail2.sysu.edu.cn)), Yanhua Lin<sup>1</sup>, Xiaowei Ding<sup>1</sup>; <sup>1</sup>Sun Yat-sen University

### **33.351 A coactivation mechanism of goal-directed and stimulus-driven attentional control**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Zexuan Niu<sup>1</sup> ([zexuan-niu@uiowa.edu](mailto:zexuan-niu@uiowa.edu)), J. Toby Mordkoff<sup>1</sup>, Andrew Hollingworth<sup>1</sup>; <sup>1</sup>The University of Iowa, Department of Psychological and Brain Sciences

### **33.352 Are microsaccades biased similarly during external and internal shifts of covert attention?**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Freek van Ede<sup>1</sup> ([freek.van.ede@vu.nl](mailto:freek.van.ede@vu.nl)), Zampeta-Sofia Alexopoulou<sup>1</sup>, Baiwei Liu<sup>1</sup>; <sup>1</sup>Vrije Universiteit Amsterdam

### **33.353 The Vigilance Decrement is Not Only About Sensitivity**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Henri Etel Skinner<sup>1</sup> ([henri@ucsb.edu](mailto:henri@ucsb.edu)), Isabel Ruacho<sup>1</sup>, Barry Giesbrecht<sup>1</sup>; <sup>1</sup>University of California Santa Barbara

### **33.354 Artificially quickening the moment of awareness alters the appearance of orientation repulsion**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Tomoya Nakamura<sup>1,2</sup>, Ikuya Murakami<sup>1</sup>; <sup>1</sup>Department of Psychology, The University of Tokyo, <sup>2</sup>Japan Society for the Promotion of Science

### **33.355 The effect of alerting on cognitive control in the Simon task: An ERP study**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Dawa Dupont<sup>1</sup> ([dd@psy.ku.dk](mailto:dd@psy.ku.dk)), Signe Allerup Vangkilde<sup>1</sup>, Anke Anseeuw<sup>2</sup>, Anders Petersen<sup>1</sup>; <sup>1</sup>University of Copenhagen, <sup>2</sup>Gent University

## **Attention: Objects**

### **33.356 Attention Response Functions During Multiple Object Tracking**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Marvin R. Maechler<sup>1</sup> ([marvin.r.maechler.gr@dartmouth.edu](mailto:marvin.r.maechler.gr@dartmouth.edu)), Patrick Cavanagh<sup>2</sup>, Peter U. Tse<sup>1</sup>; <sup>1</sup>Dartmouth College, <sup>2</sup>Glendon College

### **33.357 Differential allocation of object-based attention across interhemispheric and intrahemispheric boundaries**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

David H. Hughes<sup>1</sup> ([dhughes@mcw.edu](mailto:dhughes@mcw.edu)), Adam J. Barnas<sup>2</sup>, Adam S. Greenberg<sup>1</sup>; <sup>1</sup>Joint Dept. of Biomedical Engineering at Marquette University and Medical College of Wisconsin, <sup>2</sup>Dept. of Psychology, University of Florida

### **33.358 Object-based attention improves memory fidelity for unattended same-object stimulus, but at a cost to the attended stimulus**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Isabella DeStefano<sup>1</sup>, Timothy Brady<sup>1</sup>; <sup>1</sup>University of California San Diego

### **33.359 Object-based Attention Measured with SSVEPs**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Mohammad Shams-Ahmar<sup>1</sup> ([m.shamsahmar@gmail.com](mailto:m.shamsahmar@gmail.com)), Peter Kohler<sup>1</sup>, Patrick Cavanagh<sup>1</sup>; <sup>1</sup>York University

### **33.360 Probing the neural plasticity of space- and object-based attentional processing**

## **in childhood hemispherectomy**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Sophia Robert<sup>1</sup> ([srobert@andrew.cmu.edu](mailto:srobert@andrew.cmu.edu)), Michael C. Granovetter<sup>1,2</sup>, Marlene Behrmann<sup>2,1</sup>; <sup>1</sup>Carnegie Mellon University, <sup>2</sup>University of Pittsburgh

## **33.361 Repurposing the multiple object tracking task to assess individual differences in attention resource capacity**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Domenico Tullio<sup>1</sup> ([dtullo@uci.edu](mailto:dtullo@uci.edu)), Christopher Neves<sup>2</sup>, Jocelyn Faubert<sup>3</sup>, Armando Bertone<sup>4</sup>; <sup>1</sup>University of California, Irvine, <sup>2</sup>Concordia University, <sup>3</sup>Université de Montréal, <sup>4</sup>McGill University

## **33.362 The influence of a moving object's location on object identity judgments**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Mengxin Ran<sup>1</sup> ([ran.55@osu.edu](mailto:ran.55@osu.edu)), Zitong Lu<sup>1</sup>, Julie D. Golomb<sup>1</sup>; <sup>1</sup>Department of Psychology, The Ohio State University

## **33.363 Attentional tracking within and across visual hemifields and brain hemispheres.**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Piotr Styrkowiec<sup>1,2</sup> ([pstyrkowiec@uchicago.edu](mailto:pstyrkowiec@uchicago.edu)), Edward K. Vogel<sup>1</sup>; <sup>1</sup>University of Chicago, US, <sup>2</sup>University of Wroclaw, Poland

## **33.364 The more things change the more they stay the same; a continuously changing item can define a visual object**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Peter Mazalik<sup>1</sup> ([pmazali1@jh.edu](mailto:pmazali1@jh.edu)), Qihan Wu, Jonathan Flombaum, Justin Halberda; <sup>1</sup>Johns Hopkins

## **33.365 The Effect of Item Uniqueness on Multiple Object Tracking**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Rachel Eng<sup>1</sup> ([engr@uoguelph.ca](mailto:engr@uoguelph.ca)), Lana Trick<sup>1</sup>; <sup>1</sup>University of Guelph

## **33.366 Modeling the dynamics of spreading attention in objects: Do transformers behave like humans?**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Hossein Adeli<sup>1</sup> ([hossein.adelijelodar@gmail.com](mailto:hossein.adelijelodar@gmail.com)), Seoyoung Ahn<sup>1</sup>, Nikolaus Kriegeskorte<sup>2</sup>, Gregory Zelinsky<sup>1</sup>; <sup>1</sup>Stony Brook University, <sup>2</sup>Columbia University

## **33.367 How to ensure that animated data visualizations respect visual capacity limits**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Ouxun Jiang<sup>1</sup> ([ouxunjiang2026@u.northwestern.edu](mailto:ouxunjiang2026@u.northwestern.edu)), Camillia Matuk<sup>2</sup>, Steven Franconeri<sup>1</sup>; <sup>1</sup>Northwestern University, <sup>2</sup>New York University

## **33.368 Selective attention reconfigures the cortical extent of visual-semantic brain networks**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Emily Meschke<sup>1</sup> ([emily\\_meschke@berkeley.edu](mailto:emily_meschke@berkeley.edu)), Jack Gallant<sup>1</sup>; <sup>1</sup>University of California, Berkeley

### **33.370 Free gaze: co-recording of eye and head tracking with EEG to understand unconstrained vision**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Anna Madison<sup>1,2</sup>, Chloe Callahan-Flintoft<sup>1</sup>, Kennedy Nevling<sup>2</sup>, Ashley Weidenbach<sup>2</sup>, Haiden Moody<sup>2</sup>, Anthony Ries<sup>1,2</sup>; <sup>1</sup>DEVCOM, U.S. Army Research Laboratory, <sup>2</sup>U.S. Air Force Academy

### **33.372 Multiple-object tracking (MOT) and visually guided actions: comparing change detection and localized touch to targets vs. distractors in MOT**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Mallory E. Terry<sup>1</sup> ([terry@uoguelph.ca](mailto:terry@uoguelph.ca)), Lana M. Trick<sup>2</sup>; <sup>1</sup>University of Guelph, Canada

## **Sunday Morning Posters in Pavilion**

### **Perceptual Decision-Making**

#### **33.401 Using convolutional neural networks to relate external sensory features to internal decisional evidence**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion*

Marshall Green<sup>1</sup> ([marshall.i.green@outlook.com](mailto:marshall.i.green@outlook.com)), Mingjia Hu<sup>2</sup>, Rachel Denison<sup>3</sup>, Dobromir Rahnev<sup>1</sup>; <sup>1</sup>Georgia Institute of Technology, <sup>2</sup>Indiana University, <sup>3</sup>Boston University

#### **33.402 Competition between sensory and decisional biases in perceptual decision making**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion*

Yi Gao<sup>1</sup> ([yi.gao0525@outlook.com](mailto:yi.gao0525@outlook.com)), Sixing Chen<sup>2</sup>, Dobromir Rahnev<sup>1</sup>; <sup>1</sup>Georgia Institute of Technology, <sup>2</sup>Peking University

#### **33.403 Brain signatures during perceptual decision-making index variations in internal processing and decision boundary**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion*

Johan Nakuci<sup>1</sup> ([jnakuci3@gatech.edu](mailto:jnakuci3@gatech.edu)), Jason Samaha<sup>2</sup>, Dobromir Rahnev<sup>1</sup>; <sup>1</sup>Georgia Institute of Technology, <sup>2</sup>University of California, Santa Cruz

#### **33.404 Task-irrelevant perceptual priors are represented in decision making**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion*

Tamás Kovács<sup>1</sup> ([kovacs\\_tamas@phd.ceu.edu](mailto:kovacs_tamas@phd.ceu.edu)), Yiling Yang<sup>2</sup>, Johanna Klon-Lipok<sup>3</sup>, Márton Hajnal<sup>4</sup>, Wolf Singer<sup>2,3,5</sup>, Gergő Orbán<sup>4</sup>, Máté Lengyel<sup>1,6</sup>; <sup>1</sup>Central European University, <sup>2</sup>Ernst Strüngmann Institute for Neuroscience in Cooperation with Max Planck Society, <sup>3</sup>Max Planck Institute for Brain Research, <sup>4</sup>MTA Wigner Research Centre for Physics, <sup>5</sup>Frankfurt Institute for Advanced Studies, <sup>6</sup>University of Cambridge

#### **33.405 Intact Bayesian perceptual decision making and metacognition in autism**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion*

Laurina Fazioli<sup>1</sup> ([laurina.fazioli@hotmail.fr](mailto:laurina.fazioli@hotmail.fr)), Bat-Sheva Hadad<sup>1</sup>, Rachel Denison<sup>2</sup>, Amit Yashar<sup>1</sup>; <sup>1</sup>Department of Special Education, Haifa University, <sup>2</sup>Department of Psychological & Brain Sciences, Boston University

### **33.406 A unifying theory explains seemingly contradicting biases in perceptual estimation**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion*

Xue-Xin Wei<sup>1</sup>, Michael Hahn<sup>2</sup>; <sup>1</sup>UT Austin, <sup>2</sup>Stanford University

### **33.407 Stable perception or stable decisions? Disentangling the impact of perceptual and decisional stability on visual serial dependence**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion*

Philippe Blondé<sup>1</sup> ([philippe.blonde93@gmail.com](mailto:philippe.blonde93@gmail.com)), Alice Biryukov<sup>2</sup>, David Pascucci<sup>2</sup>, Árni Kristjánsson<sup>1</sup>; <sup>1</sup>Icelandic Vision Lab, University of Iceland, <sup>2</sup>Laboratory of Psychophysics, École Polytechnique Fédérale de Lausanne

### **33.408 Single-trial Diffusion Model estimates in perceptual decision-making with attentional modulation: Robustness and applications of basis-function parameter estimation**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion*

Aaron Cochrane<sup>1</sup> ([aaron.cochrane@unige.ch](mailto:aaron.cochrane@unige.ch)), Julia Föcker<sup>2</sup>, Daphné Bavelier<sup>1</sup>; <sup>1</sup>University of Geneva, <sup>2</sup>University of Lincoln

### **33.409 Endogenous activity outside the target location in Area MT predicts perceptual sensitivity in behaving marmosets**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion*

Zachary Davis<sup>1</sup> ([zdavis@salk.edu](mailto:zdavis@salk.edu)), Lyle Muller<sup>2</sup>, John Reynolds<sup>3</sup>; <sup>1</sup>The Salk Institute for Biological Studies 1 3, <sup>2</sup>Western University 2

### **33.410 Trade-off between search costs and accuracy in a visual and manual search task**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion*

Ilja Wagner<sup>1</sup> ([ilja.wagner@psychol.uni-giessen.de](mailto:ilja.wagner@psychol.uni-giessen.de)), Jan Tünnermann<sup>2</sup>, Anna Schubö<sup>2</sup>, Alexander Schütz<sup>2</sup>; <sup>1</sup>Justus Liebig University Giessen (Germany), <sup>2</sup>Experimental & Biological Psychology, University of Marburg (Germany)

### **33.411 How do people decide which graph will be informative?**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion*

Holly Huey<sup>1</sup> ([hhuey@ucsd.edu](mailto:hhuey@ucsd.edu)), Lauren A. Oey<sup>1</sup>, Hannah S. Lloyd<sup>1</sup>, Judith E. Fan<sup>1</sup>; <sup>1</sup>University of California, San Diego

### **33.412 Neural mechanisms determining the duration of task-free, self-paced visual perception.**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion*

Shira Baror<sup>1,2</sup> ([baror.shira@gmail.com](mailto:baror.shira@gmail.com)), Thomas Baumgarten<sup>3</sup>, Biyu Jade He<sup>1</sup>; <sup>1</sup>Neuroscience Institute, New York University School of Medicine, New York, NY, 10016, USA, <sup>2</sup>Edmond and Lily Safra Center for Brain Sciences, Hebrew University of Jerusalem, Jerusalem 91904, Israel, <sup>3</sup>Heinrich Heine University Düsseldorf, Germany

### **33.413 Estimating the planning complexity of visual subgoals**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion*

Felix J Binder<sup>1</sup> ([me@felixbinder.net](mailto:me@felixbinder.net)), Marcelo G Mattar<sup>2</sup>, David Kirsh<sup>1</sup>, Judith E Fan<sup>3</sup>; <sup>1</sup>Cognitive Science Department, University of California San Diego, <sup>2</sup>Psychology Department, New York University, <sup>3</sup>Psychology Department, University of California San Diego

## **Color, Light and Materials: Surfaces, materials, constancy**

### **33.414 Increment and decrement threshold vs. intensity curves for achromatic and L-cone tests.**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion*

Yesenia Taveras-Cruz<sup>1</sup> ([taverascruz.y@northeastern.edu](mailto:taverascruz.y@northeastern.edu)), Aanya Sehgal<sup>1</sup>, Rhea T. Eskew, Jr.<sup>1</sup>; <sup>1</sup>Northeastern University

### **33.415 Color Calibration in Virtual Reality Using Different Head Mounted Displays**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion*

Francisco Díaz Barrancas<sup>1</sup> ([francisco.diaz-barrancas@psychol.uni-giessen.de](mailto:francisco.diaz-barrancas@psychol.uni-giessen.de)), Raquel Gil Rodríguez<sup>1</sup>, Avi Aizenman<sup>1</sup>, Florian S. Bayer<sup>1</sup>, Karl R. Gegenfurtner<sup>1</sup>; <sup>1</sup>Department of Psychology, Justus-Liebig Universität, Germany

### **33.416 Towards latent representations of gloss in complex stimuli using unsupervised learning**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion*

Julia Guerrero-Viu<sup>1</sup> ([juliagviu@unizar.es](mailto:juliagviu@unizar.es)), Ana Serrano<sup>1</sup>, Belen Masia<sup>1</sup>, Diego Gutierrez<sup>1</sup>; <sup>1</sup>Universidad de Zaragoza, I3A

### **33.417 Taking A Hands-On Approach: Active Explorations In Visual Material Perception**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion*

Lisa P. Y. Lin<sup>1</sup> ([pui.lin@psychol.uni-giessen.de](mailto:pui.lin@psychol.uni-giessen.de)), Knut Drewing<sup>1</sup>, Katja Dörschner<sup>1</sup>; <sup>1</sup>Justus-Liebig-Universität Giessen

### **33.418 A large-scale measurement of human gloss judgments revealed highly consistent and systematic failures of gloss constancy**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion*

Takuma Morimoto<sup>1,2</sup> ([takuma.morimoto@psy.ox.ac.uk](mailto:takuma.morimoto@psy.ox.ac.uk)), Arash Akbarinia<sup>1</sup>, Katherine Storrs<sup>3</sup>, Jacob R. Cheeseman<sup>1</sup>, Hannah E. Smithson<sup>2</sup>, Karl R. Gegenfurtner<sup>1</sup>, Roland W. Fleming<sup>1</sup>; <sup>1</sup>Department of Psychology, Justus-Liebig-Universität Gießen, Germany, <sup>2</sup>Department of Experimental Psychology, University of Oxford, UK, <sup>3</sup>School of Psychology, University of Auckland, New Zealand

### **33.419 Vagueness and Volume: blurred contours and the perception of depth in images**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion*

Jeroen Stumpel<sup>1</sup> ([j.f.h.j.stumpel@uu.nl](mailto:j.f.h.j.stumpel@uu.nl)), Maarten Wijntjes, Robert Volcic; <sup>1</sup>Utrecht University/ TU Delft, <sup>2</sup>TU Delft,



<sup>3</sup>NYU Abu Dhabi

### **33.420 The warm-cool color dimension aligns with asymmetries in color perception implicit in uniform color spaces**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion*

Jake Manalansan<sup>1</sup>, Michael Webster<sup>1</sup>; <sup>1</sup>University of Nevada Reno

### **33.421 Measuring memory colour under metameric illuminations**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion*

Yesesvi Konakanchi<sup>1</sup>, Yunyang Shi<sup>2</sup>, Anya Hurlbert<sup>1</sup>; <sup>1</sup>Newcastle University, UK, <sup>2</sup>Southeast University, China

### **33.423 Perceiving Surface Color Requires Attention**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion*

Erin Goddard<sup>1</sup> ([erin.goddard@unsw.edu.au](mailto:erin.goddard@unsw.edu.au)), Kavita Paul Remician<sup>1</sup>; <sup>1</sup>UNSW

## **Object Recognition: Neural organization and representations**

### **33.424 Validity of neural distance measures in representational similarity analysis**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion*

Fabian Soto<sup>1</sup> ([fasoto@fiu.edu](mailto:fasoto@fiu.edu)); <sup>1</sup>Florida International University

### **33.425 cneuromod-things : a large-scale fMRI dataset for task- and data-driven assessment of object representation and visual memory recognition in the human brain**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion*

Marie St-Laurent<sup>1,2</sup> ([marie.stl@gmail.com](mailto:marie.stl@gmail.com)), Basile Pinsard<sup>1</sup>, Oliver Contier<sup>2,3</sup>, Katja Seeliger<sup>2</sup>, Valentina Borghesani<sup>1,4</sup>, Julie Boyle<sup>1</sup>, Pierre Bellec<sup>1,5</sup>, Martin Hebart<sup>2,6</sup>; <sup>1</sup>Centre de recherche de l'Institut universitaire de gériatrie de Montréal, Canada, <sup>2</sup>Vision and Computational Cognition Group, Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany, <sup>3</sup>Max Planck School of Cognition, Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany, <sup>4</sup>Faculty of Psychology and Educational Sciences, Université de Genève, Genève, <sup>5</sup>Université de Montréal, Canada, <sup>6</sup>Department of Medicine, Justus Liebig University Giessen, Germany

### **33.426 The functional profile of the ventrotemporal cortex to high-level vision, language, and attention**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion*

Kelly J. Hiersche<sup>1</sup> ([hiersche.1@buckeyemail.osu.edu](mailto:hiersche.1@buckeyemail.osu.edu)), Jin Li<sup>1</sup>, Zeynep M Saygin<sup>1</sup>; <sup>1</sup>The Ohio State University

### **33.427 A cortical surface template for human neuroscience**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion*

Ma Feilong<sup>1</sup> ([feilong.ma@dartmouth.edu](mailto:feilong.ma@dartmouth.edu)), Guo Jiahui<sup>1</sup>, M. Ida Gobbin<sup>2</sup>, James V. Haxby<sup>1</sup>; <sup>1</sup>Dartmouth College, <sup>2</sup>Università di Bologna

### **33.428 Representations of real objects and pictures in the dorsal and ventral visual streams differ based on physical stimulus distance**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion*

Grant Fairchild<sup>1</sup> ([grant.t.fairchild@gmail.com](mailto:grant.t.fairchild@gmail.com)), Desiree Holler<sup>1</sup>, Sara Fabbri<sup>1</sup>, Michael Gomez<sup>1</sup>, Jacqueline Snow<sup>1</sup>;  
<sup>1</sup>University of Nevada, Reno

### **33.429 Cross-movie prediction of individualized functional topography**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion*

Guo Jiahui<sup>1</sup> ([jjahui.guo@dartmouth.edu](mailto:jjahui.guo@dartmouth.edu)), Ma Feilong<sup>1</sup>, Samuel A. Nastase<sup>2</sup>, James V. Haxby<sup>1</sup>, M. Ida Gobbin<sup>3</sup>;  
<sup>1</sup>Dartmouth College, <sup>2</sup>Princeton University, <sup>3</sup>Università di Bologna

### **33.431 The dynamics of object coding within and across the hemispheres**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion*

Amanda K. Robinson<sup>1,2</sup> ([a.robinson4@uq.edu.au](mailto:a.robinson4@uq.edu.au)), Tijn Grootswagers<sup>3</sup>, Sophia M. Shatek<sup>2</sup>, Marlene Behrmann<sup>4</sup>, Thomas A. Carlson<sup>2</sup>; <sup>1</sup>Queensland Brain Institute, The University of Queensland, <sup>2</sup>School of Psychology, The University of Sydney, <sup>3</sup>The MARCS Institute for Brain, Behaviour and Development, Western Sydney University, <sup>4</sup>Department of Ophthalmology, University of Pittsburgh

## **Object Recognition: Visual preference, features and objects**

### **33.432 Upper visual field advantage in object detection.**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion*

Shuma Tsurumi<sup>1,2</sup> ([perry.super178@gmail.com](mailto:perry.super178@gmail.com)), Jun Kawahara<sup>1</sup>; <sup>1</sup>Hokkaido University, <sup>2</sup>Chuo University

### **33.433 Multisensory Learning of 3-D Novel Objects**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion*

Hellen Kyler<sup>1</sup> ([hkyler@iu.edu](mailto:hkyler@iu.edu)), Karin James<sup>2</sup>; <sup>1</sup>Indiana University

### **33.434 Unequal contributions of color and shape to object identification in primates**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion*

James Cavanaugh<sup>1</sup>, Alexis C. R. Green<sup>1</sup>, Bevil R. Conway<sup>1</sup>; <sup>1</sup>Laboratory for Sensorimotor Research / NEI / NIH

### **33.435 Determinants of Canonical Forms in Memory Storage and Object Recognition**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion*

Dongcheng He<sup>1</sup> ([dongcheng.he@du.edu](mailto:dongcheng.he@du.edu)), Haluk Ogmen<sup>1</sup>; <sup>1</sup>University of Denver

### **33.436 Asymmetries in fine spatial vision and cone density within the foveola**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion*

Samantha K. Jenks<sup>1,2</sup> ([sjenks8@ur.rochester.edu](mailto:sjenks8@ur.rochester.edu)), Jenny L. Witten<sup>3</sup>, Benjamin Moon<sup>2,4</sup>, Ashley M. Clark<sup>1,2</sup>, Sanjana Kapisthalam<sup>1,2</sup>, Wolf M. Harmening<sup>3</sup>, Martina Poletti<sup>1,2,5</sup>; <sup>1</sup>Department of Brain and Cognitive Sciences, University of Rochester, Rochester, NY, USA, <sup>2</sup>Center for Visual Science, University of Rochester, Rochester, NY, USA, <sup>3</sup>Department of Ophthalmology, Rheinische Friedrich-Wilhelms-Universität Bonn, Ernst-Abbe-Str. 2, Bonn 53127, Germany, <sup>4</sup>Institute of Optics, University of Rochester, Rochester, NY, USA, <sup>5</sup>Department of Neuroscience, University of Rochester, Rochester, NY, USA

## Eye Movements: Saccades and pursuit

### 33.437 Posterior parietal cortex damage causes endpoint biases relative to the visual target during anti-saccades

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion*

Julie Ouerfelli-Ethier<sup>1,2</sup>, Romain Fournet<sup>1</sup>, Laure Pisella<sup>2</sup>, Aarlenne Khan<sup>1</sup>; <sup>1</sup>University of Montreal, <sup>2</sup>Lyon Neuroscience Research Center, Trajectoires team

### 33.438 Saccades alter cortical network modularity and decrease lateralization in a visual perception task

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion*

Amirhossein Ghaderi<sup>1,2</sup> ([ghaderi@yorku.ca](mailto:ghaderi@yorku.ca)), Matthias Niemeier<sup>3,1,2</sup>, John Douglas Crawford<sup>1,2,4,5,6</sup>; <sup>1</sup>Centre for Vision Research, York University, Toronto, ON, Canada, <sup>2</sup>Vision Science to Applications (VISTA) Program, York University, Toronto, ON, Canada, <sup>3</sup>Department of Psychology, University of Toronto Scarborough, Toronto, ON, Canada, <sup>4</sup>Department of Biology, York University, Toronto, ON, Canada, <sup>5</sup>Department of Kinesiology and Health Sciences, Toronto, ON, Canada, <sup>6</sup>Department of Psychology, York University, Toronto, ON, Canada

### 33.439 Serial dependence during saccades is mediated by alpha rhythms

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion*

Chiara Terzo<sup>1</sup> ([chiaraterzo95@gmail.com](mailto:chiaraterzo95@gmail.com)), Giacomo Ranieri<sup>1</sup>, Xinyu Xe<sup>2</sup>, David Charles Burr<sup>1</sup>, Maria Concetta Morrone<sup>3</sup>; <sup>1</sup>University of Florence, Florence, Italy, <sup>2</sup>East China Normal University, Shanghai, China, <sup>3</sup>University of Pisa, Pisa, Italy

### 33.440 Saccadic adaptation changes perception of the saccade target object

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion*

Jessica Parker<sup>1</sup> ([jparke87@vols.utk.edu](mailto:jparke87@vols.utk.edu)), Madeline Embrey<sup>1</sup>, A. Caglar Tas<sup>1</sup>; <sup>1</sup>University of Tennessee, Knoxville

### 33.441 Does visual uncertainty influence saccadic adaptation?

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion*

Matteo Lisi<sup>1</sup>, Joshua Solomon<sup>2</sup>, Michael Morgan<sup>2</sup>; <sup>1</sup>Royal Holloway, University of London, <sup>2</sup>City, University of London

### 33.442 Adaptive changes to saccade amplitude and target localization induced only by post-saccadic feedback

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion*

Frauke Heins<sup>1,2</sup> ([frauke.heins@uni-muenster.de](mailto:frauke.heins@uni-muenster.de)), Jana Masselink<sup>1,2</sup>, Joshua-Nikodemus Scherer<sup>1</sup>, Markus Lappe<sup>1,2</sup>; <sup>1</sup>University of Muenster, <sup>2</sup>Otto-Creutzfeldt Center for Cognitive and Behavioral Neuroscience

### 33.443 A comparison of the temporal dynamics of pre-saccadic and pre-microsaccadic vision

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion*

Zoe Stearns<sup>1,2</sup> ([zstearn2@ur.rochester.edu](mailto:zstearn2@ur.rochester.edu)), Martina Poletti<sup>1,2</sup>; <sup>1</sup>University of Rochester, <sup>2</sup>Center for Visual Science

### **33.444 Influence of reward on saccadic vigor and pre-saccadic attention**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion*

Oliver L. Steiner<sup>1</sup> ([oliverr.e.steiner@hotmail.de](mailto:oliverr.e.steiner@hotmail.de)), Lukasz Grzeczowski<sup>1</sup>, Madeleine Gross<sup>2</sup>, Martin Rolfs<sup>1</sup>;  
<sup>1</sup>Department of Psychology, Humboldt-Universität zu Berlin, Germany, <sup>2</sup>Psychological and Brain Science  
Department, University of California, Santa Barbara, CA, USA

### **33.445 Smooth pursuit eye movements incorporate the knowledge of Newtonian mechanics and other cues for motion prediction**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion*

Jie Z. Wang<sup>1</sup> ([jwang255@ur.rochester.edu](mailto:jwang255@ur.rochester.edu)), Abdul-Rahim Deeb<sup>2</sup>, Fulvio Domini<sup>2</sup>, Eileen Kowler<sup>3</sup>; <sup>1</sup>University of Rochester, <sup>2</sup>Brown University, <sup>3</sup>Rutgers University - New Brunswick

### **33.446 Inability to pursue non-rigid motion produces instability of spatial perception**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion*

Krischan Koerfer<sup>1</sup> ([krischan.koerfer@uni-muenster.de](mailto:krischan.koerfer@uni-muenster.de)), Tamara Watson<sup>2</sup>, Markus Lappe<sup>1</sup>; <sup>1</sup>University of Muenster, <sup>2</sup>Western Sydney University

### **33.447 Representation of an object through visual occlusion**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion*

Austin Behel<sup>1</sup>, Lina Teichmann<sup>1</sup>, Grace Edwards<sup>1</sup>, Chris Baker<sup>1</sup>; <sup>1</sup>NIMH/NIH

## **Spatial Vision: Neural mechanisms**

### **33.448 Pupil-linked arousal modulates precision of representation in cortex**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion*

Laura Geurts<sup>1</sup> ([l.geurts@donders.ru.nl](mailto:l.geurts@donders.ru.nl)), Janneke Jehee<sup>1</sup>; <sup>1</sup>Donders Institute for Brain, Cognition and Behaviour, Radboud University

### **33.449 Spatial Tuning of Alpha Oscillations in Human Visual Cortex**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion*

Kenichi Yuasa<sup>1</sup> ([ky689@nyu.edu](mailto:ky689@nyu.edu)), Iris Groen<sup>2</sup>, Giovanni Piantoni<sup>3</sup>, Stephanie Montenegro<sup>4</sup>, Adeen Flinker<sup>4</sup>, Sasha Devore<sup>4</sup>, Orrin Devinsky<sup>4</sup>, Werner Doyle<sup>4</sup>, Patricia Dugan<sup>4</sup>, Daniel Friedman<sup>4</sup>, Nick Ramsey<sup>3</sup>, Natalia Petridou<sup>3</sup>, Jonathan Winawer<sup>1</sup>; <sup>1</sup>New York University, <sup>2</sup>University of Amsterdam, <sup>3</sup>University Medical Center Utrecht, <sup>4</sup>New York University School of Medicine

### **33.450 Anodal tDCS alters appearance**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion*

Sang Wook Hong<sup>1,2</sup> ([shong6@fau.edu](mailto:shong6@fau.edu)), Yosun Yoon<sup>1,2</sup>; <sup>1</sup>Department of Psychology, Florida Atlantic University, <sup>2</sup>Stiles-Nicholson Brain Institute, Florida Atlantic University

### **33.451 Improving the reliability and accuracy of population receptive field measures using a "log-bar" stimulus**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion*

Kelly Chang<sup>1</sup> ([kchang4@uw.edu](mailto:kchang4@uw.edu)), Ione Fine<sup>1</sup>, Geoffrey Boynton<sup>1</sup>; <sup>1</sup>Department of Psychology, University of Washington, Seattle

### **33.452 Evidence for high-level processing in a Ponzo-like size illusion**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion*

Ecem Altan<sup>1</sup>, Huseyin Boyaci<sup>2,3</sup>, D. Samuel Schwarzkopf<sup>1,4</sup>; <sup>1</sup>University of Auckland, New Zealand, <sup>2</sup>Bilkent University, Turkey, <sup>3</sup>University of Giessen, Germany, <sup>4</sup>University College London, United Kingdom

### **33.453 Simple, automatized and reproducible pRF analysis**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion*

David Linhardt<sup>1</sup> ([david.linhardt@meduniwien.ac.at](mailto:david.linhardt@meduniwien.ac.at)), Christian Windischberger<sup>1</sup>, Pedro Paz-Alonso<sup>2</sup>, Garikoitz Lerma-Usabiaga<sup>2</sup>; <sup>1</sup>Medical University of Vienna, Austria, <sup>2</sup>Basque Center on Cognition, Brain & Language, San Sebastián, Spain

### **33.454 Orientation-tuned normalization modulates the gain of visuocortical contrast responses in humans**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion*

Michaela Klimova<sup>1</sup>, Ilona M. Bloem<sup>2</sup>, Sam Ling<sup>1</sup>; <sup>1</sup>Boston University, <sup>2</sup>New York University

### **33.455 Characterizing the relationship between population spatial frequency tuning and receptive field size**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion*

Emily Wiecek<sup>1,2,3</sup> ([emily.wiecek@childrens.harvard.edu](mailto:emily.wiecek@childrens.harvard.edu)), Luis D. Ramirez<sup>3</sup>, Michaela Klimova<sup>3</sup>, Sam Ling<sup>3</sup>; <sup>1</sup>Boston Children's Hospital, <sup>2</sup>Harvard Medical School, <sup>3</sup>Boston University

### **33.456 Comparison of the visual discharge properties of primate superior colliculus and primary visual cortex neurons**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion*

Yue Yu<sup>1</sup> ([yue.yu@uni-tuebingen.de](mailto:yue.yu@uni-tuebingen.de)), Amarender Bogadhi<sup>1</sup>, Ziad Hafed<sup>1</sup>; <sup>1</sup>University of Tuebingen

### **33.457 Larger area size, not increased number, better explains expansion of human visual cortex**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion*

Emily Meyer<sup>1</sup>, Michael Arcaro<sup>1</sup>; <sup>1</sup>University of Pennsylvania

### **33.458 Compressive spatiotemporal summation predicts simultaneous suppression in human visual cortex**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion*

Eline R Kupers<sup>1</sup> ([ekupers@stanford.edu](mailto:ekupers@stanford.edu)), Insub Kim<sup>1</sup>, Kalanit Grill-Spector<sup>1</sup>; <sup>1</sup>Stanford University

### **33.459 The impact of noise correlations on the information contained in visual cortical activity**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion*

James R.H. Cooke<sup>1</sup>, Janneke F.M. Jehee<sup>1</sup>; <sup>1</sup>Donders Institute for Brain, Cognition and Behavior

### **33.460 Strong radial bias, but no evidence of oblique effect from high-resolution data in primary visual cortex**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion*

Qi Chen<sup>1</sup>, Karen Navarro<sup>2</sup>, Cheryl Olman<sup>3</sup>; <sup>1</sup>University of Minnesota

### **33.461 Retinotopic connectivity maps are robust to large eye movements and optical blur**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion*

D. Samuel Schwarzkopf<sup>1,2</sup> ([s.schwarzkopf@auckland.ac.nz](mailto:s.schwarzkopf@auckland.ac.nz)), Gene T. Tangtharakul<sup>1</sup>, Catherine A. Morgan<sup>1</sup>, Simon K. Rushton<sup>3</sup>; <sup>1</sup>University of Auckland, New Zealand, <sup>2</sup>University College London, <sup>3</sup>Cardiff University, Wales

### **33.462 Population receptive field properties change dynamically within milliseconds**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion*

Katharina Eickhoff<sup>1,2,3</sup>, Arjan Hillebrand<sup>4</sup>, Maartje C. de Jong<sup>1,2,5</sup>, Serge O. Dumoulin<sup>1,2,3,6</sup>; <sup>1</sup>Spinoza Centre for Neuroimaging, Amsterdam, the Netherlands, <sup>2</sup>Netherlands Institute for Neuroscience, Amsterdam, the Netherlands, <sup>3</sup>Vrije Universiteit, Amsterdam, the Netherlands, <sup>4</sup>Department of Clinical Neurophysiology and Magnetoencephalography Centre, Amsterdam UMC, the Netherlands, <sup>5</sup>University of Amsterdam, the Netherlands, <sup>6</sup>Utrecht University, the Netherlands

### **33.463 Laplacian reference is optimal for steady-state visual evoked potentials**

*Sunday, May 21, 2023, 8:30 am – 12:30 pm, Pavilion*

Yuan Zhang<sup>1</sup> ([zhanglhm@163.com](mailto:zhanglhm@163.com)), Matteo Valsecchi<sup>2</sup>, Karl Gegenfurtner<sup>3</sup>, Jing Chen<sup>1</sup>; <sup>1</sup>Shanghai University of Sports, <sup>2</sup>Università di Bologna, <sup>3</sup>Justus-Liebig-Universität Gießen

## **Sunday Afternoon Posters in Banyan Breezeway**

### **Development: Neural mechanisms and eye movements**

#### **36.301 The HEALTHY Brain and Child Development (HBCD) Study: Relevance to the Vision Sciences Community**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Lisa S. Scott<sup>1</sup> ([lscott@ufl.edu](mailto:lscott@ufl.edu)), Maeve R. Boylan<sup>1</sup>, Jens T. Rosenberg<sup>1</sup>, Andreas Keil<sup>1</sup>, Sara B. DeMauro<sup>2</sup>; <sup>1</sup>University of Florida, <sup>2</sup>Children's Hospital of Philadelphia

#### **36.302 ASSESSING THE RELIABILITY OF ERP, SSVEP, AND OSCILLATORY DATA METHODOLOGY FOR VISUAL PARADIGMS IN INFANT EEG**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Maeve R. Boylan<sup>1</sup> ([mboylan@ufl.edu](mailto:mboylan@ufl.edu)), Jessica Sanches Braga Figueria<sup>1</sup>, Mina Elhamiasl<sup>1</sup>, Isabela da Silva Andrade<sup>1</sup>, Ryan Barry-Anwar<sup>1</sup>, Andreas Keil<sup>1</sup>, Lisa S. Scott<sup>1</sup>; <sup>1</sup>University of Florida

#### **36.303 Brain Responses to Symmetry during Early Infancy**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Peter J. Kohler<sup>1</sup> ([pjkohler@yorku.ca](mailto:pjkohler@yorku.ca)), Shaya Samet<sup>1</sup>, Yara Iskandar<sup>1</sup>, Lara Pierce<sup>1</sup>; <sup>1</sup>York University, Toronto, ON,

Canada

### **36.304 Neural mechanisms of surface feature label learning in early childhood**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Alexis McCraw<sup>1</sup> ([amccraw@vols.utk.edu](mailto:amccraw@vols.utk.edu)), Kara Lowery<sup>1</sup>, Rachel Eddings<sup>1</sup>, Jacqueline Sullivan<sup>1</sup>, Hollis Heim<sup>1</sup>, Aaron Buss<sup>1</sup>; <sup>1</sup>University of Tennessee

### **36.305 Strobe-rearing preserves motion selectivity but disrupts direction selectivity in macaque area MT**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Saloni Sharma<sup>1</sup>, Michael Arcaro<sup>2</sup>, Margaret Livingstone<sup>1</sup>; <sup>1</sup>Harvard Medical School, <sup>2</sup>University of Pennsylvania

### **36.307 Youth is not wasted on the young: Late-in-life sight restoration in congenitally blind children leads to the emergence of some visual constructional skills but not others**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Sharon Gilad-Gutnick<sup>1</sup> ([sharongu@mit.edu](mailto:sharongu@mit.edu)), Pragya Shah<sup>2</sup>, Priti Gupta<sup>3</sup>, Mrinalini Yadav<sup>2</sup>, Chetan Ralekar<sup>1</sup>, Dhun Verma<sup>2</sup>, Umang Mathur<sup>4</sup>, Suma Ganesh<sup>4</sup>, Pawan Sinha<sup>1</sup>; <sup>1</sup>Massachusetts Institute of Technology, <sup>2</sup>Project Prakash, <sup>3</sup>IIT-Delhi, <sup>4</sup>Shroff Charitable Eye Hospital

### **36.308 Experience is required to develop visual-nonvisual multisensory integration capabilities**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Barry Stein<sup>1</sup> ([bestein@wakehealth.edu](mailto:bestein@wakehealth.edu)), Benjamin Rowland<sup>1</sup>; <sup>1</sup>Wake Forest School of Medicine

### **36.309 The building blocks of vision: evidence for a hierarchical, retinotopic organization in the human neonate brain**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Michael Arcaro<sup>1</sup>; <sup>1</sup>University of Pennsylvania

### **36.310 Development of Peak Alpha Frequency During Infancy**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Mina Elhamias<sup>1</sup> ([melhamias@ufl.edu](mailto:melhamias@ufl.edu)), Jessica Sanches Braga Figueira<sup>1</sup>, Ryan Barry-Anwar<sup>1</sup>, Andreas Keil<sup>1</sup>, Lisa S. Scott<sup>1</sup>; <sup>1</sup>University of Florida

### **36.311 Phonemic Discrimination and Eye Movements in Infants**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Shir Kay<sup>1</sup> ([shirkay4@yorku.ca](mailto:shirkay4@yorku.ca)), Scott A. Adler<sup>1</sup>; <sup>1</sup>York University

### **36.312 Perspective matters: the role of scene point of view on infants' looking strategies**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Christian Nelson<sup>1</sup> ([chnelson@ucdavis.edu](mailto:chnelson@ucdavis.edu)), Taylor Hayes<sup>1</sup>, John Henderson<sup>1</sup>, Lisa Oakes<sup>1</sup>; <sup>1</sup>University of California, Davis

### **36.313 The Distribution of Gaze Positions of Human Infants in Natural Behavior**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

T Rowan Candy<sup>1</sup> ([rcandy@indiana.edu](mailto:rcandy@indiana.edu)), Adam Dalessandro<sup>1</sup>, Victoria Tellez<sup>1</sup>, Stephanie Biehn<sup>1</sup>, Clara Mestre<sup>1</sup>, Taylor Haaff<sup>1</sup>, Kathryn Bonnen<sup>1</sup>, Linda Smith<sup>1</sup>; <sup>1</sup>Indiana University

## **Eye Movements: Visual Impairment**

### **36.314 Altered eye movements during reading under various types of visual field defects**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Haojue Yu<sup>1</sup> ([yu.haoj@northeastern.edu](mailto:yu.haoj@northeastern.edu)), MiYoung Kwon<sup>1</sup>; <sup>1</sup>Northeastern University

### **36.315 Consistency of the PRL Across Vergence Demand as a Measure of Objective Fixation Disparity**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Norick R. Bowers<sup>1,2</sup> ([norick.bowers@psychol.uni-giessen.de](mailto:norick.bowers@psychol.uni-giessen.de)), Susana T. L. Chung<sup>2</sup>, Martin S. Banks<sup>2</sup>, Austin Roorda<sup>2</sup>; <sup>1</sup>Justus Liebig Universität Gießen, <sup>2</sup>University of California Berkeley, Herbert Wertheim School of Optometry & Vision Science

### **36.316 Eye-tracking to quantify visual function in individuals with vision impairment: A systematic review**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Ward Nieboer<sup>1</sup> ([wardnieboer@gmail.com](mailto:wardnieboer@gmail.com)), Andrea Ghiani<sup>1</sup>, Ralph de Vries<sup>1</sup>, Eli Brenner<sup>1</sup>, David Mann<sup>1</sup>; <sup>1</sup>Vrije Universiteit Amsterdam

### **36.317 Flicker Impairs Reading Speed: Impacts on the Visually Sensitive**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Sarah M Haigh<sup>1</sup> ([shaigh@unr.edu](mailto:shaigh@unr.edu)), Caitlin A Laycox<sup>1</sup>, Lauren Thompson<sup>2</sup>, Jasmine A Haggerty<sup>1</sup>, Arnold J Wilkins<sup>3</sup>; <sup>1</sup>University of Nevada, Reno, <sup>2</sup>Vassar College, <sup>3</sup>University of Essex

### **36.318 Changes in eye condition using eye movement training application**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Hyungoo Kang<sup>1,2</sup> ([hgkang@cku.ac.kr](mailto:hgkang@cku.ac.kr)), Sejoon Moon<sup>2</sup>, Kyunghyun Park<sup>1</sup>, Ji Hye Kim<sup>1</sup>, Ji Won Lee<sup>1</sup>, Minji Gil<sup>2</sup>, Ye Jin Jang<sup>2</sup>, beom jun Kim<sup>2</sup>, Sang-il Park<sup>1,2</sup>; <sup>1</sup>Dept. of Optometry, Catholic Kwandong Univ., <sup>2</sup>Dept. of Biomedical engineering, Catholic Kwandong Univ.

## **Motion: Local, in depth**

### **36.319 Retinal Slip from Self Motion Modulates the Perceptibility of Jitter in World-Locked Augmented Reality**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Hope Lutwak<sup>1,2</sup> ([h1239@nyu.edu](mailto:h1239@nyu.edu)), T. Scott Murdison<sup>1</sup>, Kevin W. Rio<sup>1</sup>; <sup>1</sup>Reality Labs, Meta Platforms Inc., <sup>2</sup>New York University



### **36.320 Frame induced position shifts extend outside the frame in space but not in time**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

B. Marius 't Hart<sup>1</sup> ([thartbm@gmail.com](mailto:thartbm@gmail.com)), Patrick Cavanagh<sup>1,2,3</sup>; <sup>1</sup>Centre for Vision Research, York University, Toronto, ON, Canada, <sup>2</sup>Department of Psychology, Glendon College, Toronto, ON, Canada, <sup>3</sup>Department of Psychological and Brain Sciences, Dartmouth College, Hanover, NH, USA

### **36.321 The effects of stimulus size and auditory input on speed perception**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Gözde Şentürk<sup>1</sup>, İnci Eke<sup>1</sup>, Emin Kılıç<sup>1</sup>; <sup>1</sup>Middle East Technical University, Northern Cyprus Campus, Psychology Program

### **36.322 Trajectory Estimation in Amblyopia**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Ziad Lamlili El Mazoui Nadori<sup>1</sup> ([ziad.lamlilielmazouinadori@mail.mcgill.ca](mailto:ziad.lamlilielmazouinadori@mail.mcgill.ca)), Alexandre Reynaud<sup>2</sup>; <sup>1</sup>First Year Medical Student, McGill University, <sup>2</sup>Ophthalmology & Visual Sciences, McGill Vision Research

### **36.323 Effects of Local and Global Cues on Oculomotor and Perceived of Movement**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Joonsik Moon<sup>1</sup> ([moon.joo@northeastern.edu](mailto:moon.joo@northeastern.edu)), Peter Bex<sup>1</sup>; <sup>1</sup>Northeastern University

### **36.324 Correlation between perceived size and depth changes in the Dynamic Ebbinghaus illusion**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Saki Takao<sup>1,2</sup> ([sakitakao76@gmail.com](mailto:sakitakao76@gmail.com)), Katsumi Watanabe<sup>2</sup>, Patrick Cavanagh<sup>1</sup>; <sup>1</sup>Glendon College of York University, <sup>2</sup>Waseda University

### **36.325 Height-in-Field Cues Affect Motion-in-Depth Speed Discrimination**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Ross Goutcher<sup>1</sup> ([ross.goutcher@stir.ac.uk](mailto:ross.goutcher@stir.ac.uk)), Lauren Murray<sup>1</sup>; <sup>1</sup>University of Stirling

### **36.326 Single-trial fMRI decoding of 3D motion based on stereoscopic and perspective cues**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Puti Wen<sup>2</sup> ([pw1246@nyu.edu](mailto:pw1246@nyu.edu)), Michael Landy<sup>1</sup>, Bas Rokers<sup>1,2</sup>; <sup>1</sup>New York University, <sup>2</sup>New York University Abu Dhabi

### **36.327 Introspective inference counteracts perceptual distortion**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Andra Mihali<sup>1</sup> ([alm652@nyu.edu](mailto:alm652@nyu.edu)), Marianne Broeker, Florian Ragalmuto, Guillermo Horga; <sup>1</sup>Columbia University, <sup>2</sup>University of Oxford, <sup>3</sup>Vrije Universiteit Amsterdam, <sup>4</sup>New York State Psychiatric Institute

### **36.328 ZOOM: a robust and more accurate adaptive procedure to quantify perception**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Julien Audiffren<sup>1</sup> ([julien.audiffren@unifr.ch](mailto:julien.audiffren@unifr.ch)), Jean Pierre Bresciani<sup>1</sup>; <sup>1</sup>University of Fribourg

### **36.329 The effect of tobacco use on performance in a structure-from-motion task among patients with psychotic psychopathology.**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Kyle W. Killebrew<sup>1</sup> ([kkillebr@umn.edu](mailto:kkillebr@umn.edu)), Hannah R. Moser<sup>1</sup>, Andrea Grant<sup>2</sup>, Scott R. Sponheim<sup>1,3</sup>, Justin Anker<sup>1</sup>, Micheal-Paul Schallmo<sup>1</sup>; <sup>1</sup>Department of Psychiatry and Behavioral Sciences, University of Minnesota, <sup>2</sup>Center for Magnetic Resonance Research, University of Minnesota, <sup>3</sup>Veterans Affairs Medical Center, Minneapolis, MN

## **Attention: Individual differences**

### **36.330 Inter-individual variations in internal noise correlate with visual attention but not with post-perceptual processes**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Felipe Luzardo<sup>1</sup> ([felipedavidluzardo@gmail.com](mailto:felipedavidluzardo@gmail.com)), Yaffa Yeshurun<sup>1</sup>; <sup>1</sup>University of Haifa

### **36.331 Autistic group differences in social attention are magnified by real-world perceptual and linguistic features**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Amanda J Haskins<sup>1</sup> ([ajh.gr@dartmouth.edu](mailto:ajh.gr@dartmouth.edu)), Jeff Mentch<sup>2</sup>, Thomas L. Botch<sup>1</sup>, Brenda D. Garcia<sup>1</sup>, Alexandra L. Burrows<sup>1</sup>, Caroline E. Robertson<sup>1</sup>; <sup>1</sup>Dartmouth College, <sup>2</sup>Harvard University

### **36.332 Characterizing the consistency and malleability of sustained attention performance**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Anna Corriveau<sup>1</sup>, Anthony James Jr.<sup>1</sup>, Monica D. Rosenberg<sup>1</sup>; <sup>1</sup>University of Chicago

### **36.333 Reliability of Individual Difference Measures of Target Enhancement and Distractor Suppression**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Natalia Khodayari<sup>1</sup> ([nkhodayari@jhu.edu](mailto:nkhodayari@jhu.edu)), Howard Egeth<sup>1</sup>, Susan Courtney<sup>1</sup>; <sup>1</sup>Johns Hopkins University

### **36.334 Stability of Individual Differences in Implicitly Guided Attention**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Chen Chen<sup>1</sup> ([chen5954@umn.edu](mailto:chen5954@umn.edu)), Vanessa G. Lee<sup>1</sup>; <sup>1</sup>University of Minnesota

### **36.335 Stable individual differences in gaze behavior reflect unique conceptual priority maps**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Katherine Packard<sup>1</sup>, Amanda J. Haskins<sup>1</sup>, Caroline E. Robertson<sup>1</sup>; <sup>1</sup>Dartmouth College

### **36.336 Filtering of visual distractors in schizophrenia: Diminished attentional control predicts behavioral deficits**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Scott Sponheim<sup>1,2</sup> ([sponh001@umn.edu](mailto:sponh001@umn.edu)), Peter Lynn<sup>2</sup>; <sup>1</sup>Minneapolis VA Health Care System, <sup>2</sup>University of Minnesota, Twin Cities

### **36.337 Use of facial expressions to estimate level of attention while watching video lectures.**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Renjun miao<sup>1,2</sup> ([miaorenjun@gmail.com](mailto:miaorenjun@gmail.com)), Haruka Kato<sup>1</sup>, Yasuhiro Hatori<sup>1</sup>, Yoshiyuki Sato<sup>1</sup>, Satoshi Shioiri<sup>1</sup>; <sup>1</sup>TOHOKU UNIVERSITY, <sup>2</sup>POPER

## **Visual Working Memory: Interference**

### **36.338 Can items in visual working memory be shielded from visual interference while in use?**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Eva Lout<sup>1</sup> ([lout.2@osu.edu](mailto:lout.2@osu.edu)), Blaire Dube<sup>1</sup>, Julie D. Golomb<sup>1</sup>; <sup>1</sup>The Ohio State University

### **36.339 Differently prioritized working memory items are differently protected from perceptual interference.**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Koeun Jung<sup>1</sup> ([jungke1225@gmail.com](mailto:jungke1225@gmail.com)), Suk Won Han<sup>1</sup>, Yoonki Min<sup>1</sup>; <sup>1</sup>Chungnam National University

### **36.342 Spontaneous detection of Visual Working Memory failures and subsequent performance recovery**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Olga Kozlova<sup>1</sup> ([olga.kozlova@mail.utoronto.ca](mailto:olga.kozlova@mail.utoronto.ca)), Keisuke Fukuda<sup>1,2</sup>; <sup>1</sup>University of Toronto Mississauga, <sup>2</sup>University of Toronto

### **36.343 The effect of masking on visual working memory pointer-system**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Shani Friedman<sup>1</sup> ([shanibuch@gmail.com](mailto:shanibuch@gmail.com)), Roy Luria<sup>2</sup>; <sup>1</sup>Tel-Aviv University

### **36.344 Verbal interference with visual working memory**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Andreea-Maria Gui<sup>1,2</sup>, Joana Pereira Seabra<sup>1,2</sup>, Thomas B. Christophel<sup>1,2</sup>; <sup>1</sup>Bernstein Center for Computational Neuroscience Berlin, Germany, <sup>2</sup>Humboldt-Universität zu Berlin, Germany

### **36.345 When can working memory consolidation be interrupted?**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Brandon Carlos<sup>1</sup> ([bjcarlos@uh.edu](mailto:bjcarlos@uh.edu)), Benjamin Tamber-Rosenau<sup>1</sup>; <sup>1</sup>University of Houston

### **36.346 Working memory is robust to distractors but not sensory uncertainty**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Holly Kular<sup>1</sup> ([hkular@ucsd.edu](mailto:hkular@ucsd.edu)), Kirsten Adam<sup>1</sup>, John Serences<sup>1</sup>; <sup>1</sup>University of California San Diego

### **36.347 Neural encoding and dynamics of visual working memory during distraction**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Jonas Karolis Degutis<sup>1,2</sup> ([j.karolis.degutis@maxplanckschools.de](mailto:j.karolis.degutis@maxplanckschools.de)), Joram Soch<sup>1,3</sup>, Simon Weber<sup>1,4</sup>, John-Dylan Haynes<sup>1,2,4,5</sup>; <sup>1</sup>Charité Universitätsmedizin Berlin, <sup>2</sup>Max Planck School of Cognition, <sup>3</sup>German Center for Neurodegenerative Diseases, <sup>4</sup>Humboldt-Universität zu Berlin, <sup>5</sup>Technische Universität Dresden

### **36.348 Inter-item competition during encoding and maintenance**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Janna Wennberg<sup>1</sup> ([jwennber@ucsd.edu](mailto:jwennber@ucsd.edu)), John Serences<sup>1</sup>; <sup>1</sup>University of California, San Diego

### **36.349 Event Working Memory Selectively Impairs Dynamic Tracking**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Qi Gao<sup>1</sup> ([qi.gao@zju.edu.cn](mailto:qi.gao@zju.edu.cn)), Xiaochi Ma<sup>1</sup>, Mowei Shen<sup>1</sup>, Zaifeng Gao<sup>1</sup>; <sup>1</sup>Zhejiang University

### **36.350 Naturalistic visual input during the working memory delay reduces microsaccades but increases recall error**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Amit Rawal<sup>1,2</sup> ([amitrawal1643@gmail.com](mailto:amitrawal1643@gmail.com)), Rosanne L. Rademaker<sup>1</sup>; <sup>1</sup>Ernst Strüngmann Institute (ESI) for Neuroscience in Cooperation with the Max Planck Society, Frankfurt, Germany, <sup>2</sup>Vrije Universiteit Amsterdam

### **36.351 Working memory representations modulate the magnitude of the similarity-induced memory bias**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Nursima Ünver<sup>1</sup> ([nursima.unver@mail.utoronto.ca](mailto:nursima.unver@mail.utoronto.ca)), Rosanne Rademaker<sup>2</sup>, Keisuke Fukuda<sup>1,3</sup>; <sup>1</sup>University of Toronto, Toronto, Canada, <sup>2</sup>Ernst Strüngmann Institute for Neuroscience, Max Planck Society, Frankfurt, Germany, <sup>3</sup>University of Toronto Mississauga, Toronto, Canada

## **Visual Working Memory: Attention, load and capacity**

### **36.353 Investigating visual working memory capacity using a highly reliable change localization task**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Temilade Adekoya<sup>1</sup> ([tyadekoya@uchicago.edu](mailto:tyadekoya@uchicago.edu)), Chong Zhao<sup>2</sup>, Edward Vogel<sup>3</sup>, Edward Awh<sup>4</sup>; <sup>1</sup>University of Chicago

### **36.354 The Effects of Physical Effort on Working Memory Encoding**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Li Yang<sup>1</sup> ([lyang147@ucr.edu](mailto:lyang147@ucr.edu)), Hyung-Bum Park<sup>1</sup>, Weiwei Zhang<sup>1</sup>; <sup>1</sup>University of California, Riverside

### **36.355 The Impact of Visual Working Memory Chunking on Visual Search**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Logan Doyle<sup>1</sup> ([logan.doyle@mail.utoronto.ca](mailto:logan.doyle@mail.utoronto.ca)), Susanne Ferber<sup>2</sup>; <sup>1</sup>University of Toronto

### **36.356 Working Memory Precision Under Physical Effort**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Lilian Azer<sup>1</sup> ([lazer001@ucr.edu](mailto:lazer001@ucr.edu)), Weiwei Zhang<sup>1</sup>; <sup>1</sup>University of California, Riverside

### **36.357 Unimodal load selectively reduces recruitment of sensory cortices for working memory storage**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Vivien Chopurian<sup>1,2,3</sup> ([vivien.chopurian@bccn-berlin.de](mailto:vivien.chopurian@bccn-berlin.de)), Simon Weber<sup>1,2,3</sup>, Thomas Christophel<sup>1,2,3</sup>; <sup>1</sup>Humboldt University of Berlin, <sup>2</sup>Bernstein Center for Computational Neuroscience Berlin, <sup>3</sup>Berlin Center for Advanced Neuroimaging

### **36.358 Focusing attention in long-term and working memory improves recall and guides perception**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Dongyu Gong<sup>1,2</sup> ([dongyu.gong@new.ox.ac.uk](mailto:dongyu.gong@new.ox.ac.uk)), Dejan Draschkow<sup>1,2</sup>, Anna C. Nobre<sup>1,2</sup>; <sup>1</sup>Oxford Centre for Human Brain Activity, Wellcome Centre for Integrative Neuroimaging, University of Oxford, UK, <sup>2</sup>Department of Experimental Psychology, University of Oxford, UK

### **36.359 Univariate and multivariate load-dependent signals in human cortex**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Kirsten Adam<sup>1</sup> ([kadam@ucsd.edu](mailto:kadam@ucsd.edu)), Edward Awh<sup>2</sup>, John Serences<sup>1</sup>; <sup>1</sup>University of California San Diego, <sup>2</sup>University of Chicago

### **36.360 The role of theta and alpha oscillations in control of visual working memory-guided attention**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Jiachen Lu<sup>2</sup> ([784652742@qq.com](mailto:784652742@qq.com)), Xilin Zhang<sup>1,2</sup>; <sup>1</sup>Key Laboratory of Brain, Cognition and Education Sciences, Ministry of Education, South China Normal University, Guangzhou, Guangdong 510631, China, <sup>2</sup>School of Psychology, Center for Studies of Psychological Application, and Guangdong Provincial Key Laboratory of Mental Health and Cognitive Science, South China Normal University, Guangzhou, Guangdong 510631, China

### **36.361 Sustained Attention and Cue Prioritization in Visual Working Memory**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Stephanie Saltzmann<sup>1</sup> ([ssaltz2@lsu.edu](mailto:ssaltz2@lsu.edu)), Melissa Beck<sup>1</sup>; <sup>1</sup>Louisiana State University

### **36.362 Attention to remembered items eliminates visual field biases**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Summer Sheremata<sup>1</sup> ([ssheremata@fau.edu](mailto:ssheremata@fau.edu)), Valorie Wiseman; <sup>1</sup>Florida Atlantic University

### **36.363 Visual working memory and perception share their spatial but not attentional resolution**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Harun Yörük<sup>1</sup> ([harunyoruk42@gmail.com](mailto:harunyoruk42@gmail.com)), Benjamin J. Tamber-Rosenau<sup>1</sup>; <sup>1</sup>University of Houston

### **36.364 Learned Distractor Rejection Falls Prey to the Attentional White Bear**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Aditya Prakash<sup>1</sup> ([adiprakash@uiowa.edu](mailto:adiprakash@uiowa.edu)), Andrew Hollingworth<sup>2</sup>; <sup>1</sup>University of Iowa, Department of Psychological and Brain Sciences

### **36.365 Memory guidance of attentional sampling, visual search, and working memory use during natural behaviour in virtual reality.**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Dejan Draschkow<sup>1</sup>, Levi Kumle<sup>1</sup>, Rhianna Watt<sup>1</sup>, Sage Boettcher<sup>1</sup>, Anna C. Nobre<sup>1</sup>; <sup>1</sup>University of Oxford

## **Perceptual Decision-Making: Confidence**

### **36.366 Falsifying the Bayesian confidence hypothesis**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Kai Xue<sup>1</sup> ([kxue33@gatech.edu](mailto:kxue33@gatech.edu)), Medha Shekhar<sup>1</sup>, Dobromir Rahnev<sup>1</sup>; <sup>1</sup>Georgia Institute of Technology

### **36.367 Characterizing the metaperceptual function across the entire visual field**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Angela Shen<sup>1</sup> ([angela.shen@uci.edu](mailto:angela.shen@uci.edu)), Megan A. K. Peters<sup>1</sup>; <sup>1</sup>University of California, Irvine

### **36.368 Optimal metacognitive decision strategies in Signal Detection Theory**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Megan Peters<sup>1</sup>, Lucie Charles<sup>2</sup>, Brian Maniscalco<sup>1</sup>; <sup>1</sup>University of California Irvine, <sup>2</sup>Institute of Cognitive Neuroscience, University College London

### **36.369 Confidence Ratings Reflect Conscious but not Unconscious Perception**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Trevor Caruso<sup>1</sup> ([trevorcaruso@gmail.com](mailto:trevorcaruso@gmail.com)), Richard Brown<sup>1</sup>, Tony Ro<sup>1</sup>; <sup>1</sup>CUNY Graduate Center

### **36.370 Two distinct neural representations of confidence in categorization of a natural image**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Xuan Cui<sup>1</sup>, Yaocong Duan<sup>1</sup>, Yuening Yan<sup>1</sup>, Christopher Benwell<sup>2</sup>, Robin Ince<sup>1</sup>, Philippe Schyns<sup>1</sup>; <sup>1</sup>School of Psychology and Neuroscience, University of Glasgow, Glasgow, United Kingdom, <sup>2</sup>School of Social Sciences, University of Dundee, Dundee, United Kingdom

### **36.371 Why you should lack confidence in signal-detection-based analyses of confidence**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Derek Arnold<sup>1</sup> ([d.arnold@psy.uq.edu.au](mailto:d.arnold@psy.uq.edu.au)), Alan Johnston<sup>2</sup>, Joshua Adie<sup>3</sup>, Kielan Yarrow<sup>4</sup>; <sup>1</sup>Perception Lab, The University of Queensland, <sup>2</sup>School of Psychology, The University of Nottingham, <sup>3</sup>Research Institute for Sport & Exercise, University of Canberra, <sup>4</sup>Department of Psychology, City University London

## **Sunday Afternoon Posters in Pavilion**

### **Plasticity and Learning: Statistical learning**

### **36.401 Dissociating subjective and objective awareness reports using priming**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion*

Karen Tian<sup>1</sup> ([ktian@bu.edu](mailto:ktian@bu.edu)), Meghan Walsh<sup>1</sup>, Rachel Denison<sup>1</sup>; <sup>1</sup>Boston University

### **36.402 Statistical learning facilitates the selection of stimuli into awareness**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion*

Luzi Xu<sup>1</sup> ([l.xu2@uu.nl](mailto:l.xu2@uu.nl)), Chris Paffen<sup>1</sup>, Stefan Van der Stigchel<sup>1</sup>, Surya Gayet<sup>1</sup>; <sup>1</sup>Utrecht University

### **36.403 Learning to direct attention in space and time**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion*

Zhenzhen Xu<sup>1</sup> ([z.z.xu@vu.nl](mailto:z.z.xu@vu.nl)), Sander A. Los<sup>2</sup>, Jan Theeuwes<sup>3</sup>; <sup>1</sup>Vrije Universiteit Amsterdam, <sup>2</sup>Institute Brain and Behavior Amsterdam (iBBA)

### **36.404 Similarity enhances visual statistical learning**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion*

Alyssa Levy<sup>1</sup> ([alevalt@udel.edu](mailto:alevalt@udel.edu)), Timothy Vickery<sup>1</sup>; <sup>1</sup>University of Delaware

### **36.406 Active inference slows reversal learning in uncertain environments**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion*

Jet Lageman<sup>1</sup> ([j.lageman@vu.nl](mailto:j.lageman@vu.nl)), Johannes J. Fahrenfort<sup>1</sup>, Heleen A. Slagter<sup>1</sup>; <sup>1</sup>Vrije Universiteit Amsterdam

## **Plasticity and Learning: Tasks, models**

### **36.407 Perceptual adaptation leads to changes in encoding accuracy that match those of a recurrent neural network optimized for predicting the future**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion*

Jiang Mao<sup>1</sup> ([jiangmao@sas.upenn.edu](mailto:jiangmao@sas.upenn.edu)), Constantin A. Rothkopf<sup>2</sup>, Alan A. Stocker<sup>1</sup>; <sup>1</sup>University of Pennsylvania, <sup>2</sup>Centre for Cognitive Science, Technical University of Darmstadt

### **36.408 Generalization in perceptual learning across stimuli and tasks in varied adaptation levels.**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion*

Ravit Kahalani<sup>1</sup> ([ravitk27@gmail.com](mailto:ravitk27@gmail.com)), Maria Lev<sup>1</sup>, Dov Sagi<sup>2</sup>, Uri Polat<sup>1</sup>; <sup>1</sup>School of Optometry and Vision Science, Faculty of Life Science, Bar-Ilan University, Ramat-Gan, <sup>2</sup>The Weizmann Institute of Science, Rehovot, Israel

### **36.409 Contour erasure affects the contrast threshold for grating targets**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion*

Yih-Shiuan Lin<sup>1</sup> ([yihshiuan.lin@gmail.com](mailto:yihshiuan.lin@gmail.com)), Chien-Chung Chen<sup>2,3</sup>, Mark W Greenlee<sup>1</sup>; <sup>1</sup>Institute of Psychology, University of Regensburg, <sup>2</sup>Department of Psychology, National Taiwan University, <sup>3</sup>Neurobiology and Cognitive Science Center, National Taiwan University

### **36.410 Non-monotonic plasticity from real-time inception of competition between object representations**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion*

Kailong Peng<sup>1,2</sup> ([kailongpeng001@gmail.com](mailto:kailongpeng001@gmail.com)), Jefferey D. Wammes<sup>3,4</sup>, Alex Nguyen<sup>5,6</sup>, Marius Cătălin Iordan<sup>7,8</sup>, Kenneth A. Norman<sup>5,6</sup>, Nicholas B. Turk-Browne<sup>1,9</sup>; <sup>1</sup>Department of Psychology, Yale University, <sup>2</sup>Interdepartmental Neuroscience Program, Yale University, <sup>3</sup>Department of Psychology, Queen's University, <sup>4</sup>Center for Neuroscience Studies, Queen's University, <sup>5</sup>Department of Psychology, Princeton University, <sup>6</sup>Princeton Neuroscience Institute, Princeton University, <sup>7</sup>Department of Brain and Cognitive Sciences, University of Rochester, <sup>8</sup>Department of Neuroscience, University of Rochester, <sup>9</sup>Wu Tsai Institute, Yale University

### **36.411 Channel-specific perceptual learning of texture detection**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion*

Zahra Hussain<sup>1</sup> ([zahra.hussain@plymouth.ac.uk](mailto:zahra.hussain@plymouth.ac.uk)), Melissa Allouche<sup>2</sup>; <sup>1</sup>University of Plymouth, <sup>2</sup>American University of Beirut

### **36.412 PLFest: A cross-platform application to support open science in perceptual learning research**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion*

Samyukta Jayakumar<sup>1</sup> ([samyukta.jayakumar@email.ucr.edu](mailto:samyukta.jayakumar@email.ucr.edu)), Marcello Maniglia<sup>1</sup>, Trevor Stavropoulos<sup>3</sup>, Hong Guan<sup>2</sup>, C. Shawn Green<sup>2</sup>, Aaron Seitz<sup>1</sup>; <sup>1</sup>University of California, Riverside, <sup>2</sup>University of Wisconsin-Madison, <sup>3</sup>TAS Consulting

### **36.413 Paired Comparisons Effectively Drive the Learning of Multi-Category Perceptual Learning**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion*

Victoria L. Jacoby<sup>1</sup> ([vjacoby@ucla.edu](mailto:vjacoby@ucla.edu)), Christine M. Massey<sup>1</sup>, Philip J. Kellman<sup>1</sup>; <sup>1</sup>University of California, Los Angeles

### **36.414 Delayed feedback limits performance improvements in orientation perceptual learning**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion*

Jiajuan Liu<sup>1</sup> ([jjajuanl@gmail.com](mailto:jjajuanl@gmail.com)), Zhong-Lin Lu<sup>2</sup>, Barbara Doshier<sup>1</sup>; <sup>1</sup>University of California, Irvine, <sup>2</sup>New York University

### **36.415 Enhancing Multi-Category Perceptual Learning Using Signal Detection Theory Concepts in Dermatologic Cancer Screening**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion*

Philip Kellman<sup>1</sup> ([kellman@cognet.ucla.edu](mailto:kellman@cognet.ucla.edu)), Sally Krasne<sup>1</sup>, Everett Mettler<sup>1</sup>, Timothy Burke<sup>1</sup>, Christine Massey<sup>1</sup>; <sup>1</sup>University of California, Los Angeles

### **36.416 Non-parametric Hierarchical Bayesian Modeling of the Learning Curve in Perceptual Learning**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion*

Zhong-Lin Lu<sup>1,2</sup> ([zhonglin@nyu.edu](mailto:zhonglin@nyu.edu)), Yukai Zhao<sup>2</sup>, Jiajuan Liu<sup>3</sup>, Barbara Doshier<sup>3</sup>; <sup>1</sup>NYU Shanghai, <sup>2</sup>NYU, <sup>3</sup>UCI

## **Binocular Vision: Integration and rivalry**



### **36.417 Perceptual selection of a musical score during binocular rivalry reported by a relevant action with or without auditory feedback.**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion*

Jiyoung Oh<sup>1</sup> ([ojy900@korea.ac.kr](mailto:ojy900@korea.ac.kr)), Chai-Youn Kim<sup>1</sup>; <sup>1</sup>School of Psychology, Korea University, Seoul, Korea

### **36.418 Direct MEG Comparison of Binocular Rivalry and Monocular Pattern Rivalry**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion*

Austin Cooper<sup>1</sup> ([austin.cooper@mail.mcgill.ca](mailto:austin.cooper@mail.mcgill.ca)), Eric Mokri<sup>1</sup>, Jason Da Silva Castanheira<sup>2</sup>, Janine Mendola<sup>1</sup>;

<sup>1</sup>Department of Ophthalmology and Visual Sciences, McGill University, Montreal, Quebec, Canada, <sup>2</sup>Department of Neurology and Neurosurgery and the McConnell Brain Imaging Centre, Montreal Neurological Institute, McGill University, Montreal, Quebec, Canada

### **36.419 Gradual changes in monocular neural signals during long dominance periods in binocular rivalry**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion*

Shaozhi Nie<sup>1</sup> ([nie00043@umn.edu](mailto:nie00043@umn.edu)), Stephen Engel<sup>1</sup>; <sup>1</sup>University of Minnesota

### **36.420 Investigating the temporal dynamics of dichoptic masking**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion*

Daniel Gurman<sup>1</sup> ([daniel.gurman@mail.mcgill.ca](mailto:daniel.gurman@mail.mcgill.ca)), Alexandre Reynaud<sup>1</sup>; <sup>1</sup>Department of Ophthalmology and Visual Sciences, McGill University

### **36.421 Ocularity-contingent monocular and binocular responses and ocularity functional organizations of V1 superficial-layer neurons in macaques**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion*

shenghui zhang<sup>1</sup>, xingnan zhao<sup>1</sup>, shiming tang<sup>1,2,3</sup>, cong yu<sup>1,3,4</sup>; <sup>1</sup>PKU-Tsinghua Center for Life Sciences, <sup>2</sup>School of Life Sciences, Peking University, <sup>3</sup>IDG-McGovern Institute for Brain Research, <sup>4</sup>School of Psychological and Cognitive Sciences, Peking University

### **36.422 Learning to discriminate the eye-of-origin during continuous flash suppression**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion*

Izel Sari<sup>1</sup>, Samuel Recht<sup>2</sup>, Claudia Lunghi<sup>1</sup>; <sup>1</sup>Laboratoire des systèmes perceptifs, Département d'études cognitives, École normale supérieure, PSL University, CNRS, <sup>2</sup>Department of Experimental Psychology, University of Oxford

### **36.423 The sensitivity of human observers to the eye of origin of visual information**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion*

Aishwarya Ravi<sup>1</sup> ([aishravi@iu.edu](mailto:aishravi@iu.edu)), Clara Mestre<sup>1</sup>, Charlene Ubah<sup>1</sup>, Jenny C A Read<sup>2</sup>, Rowan Candy<sup>1</sup>; <sup>1</sup>Indiana University School of Optometry, <sup>2</sup>Biosciences Institute, Newcastle University, UK

### **36.424 Integration and Suppression Interact in Binocular Vision**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion*

Rong Jiang<sup>1</sup> ([1099072076@qq.com](mailto:1099072076@qq.com)), Ming Meng<sup>1</sup>; <sup>1</sup>South China Normal University

### **36.425 Evidence for binocular differencing and summing channels for chromatic stimuli**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion*

Yoel Yakobi<sup>1</sup>, Clara Wang<sup>1</sup>, Frederick Kingdom<sup>1</sup>; <sup>1</sup>McGill University

### **36.426 Interhemispheric gamma-band synchronization in visual cortex induced by tACS promotes interocular grouping**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion*

Yosun Yoon<sup>1,2</sup> ([yosunyoong@gmail.com](mailto:yosunyoong@gmail.com)), Sang Wook Hong<sup>1,2</sup>; <sup>1</sup>Department of Psychology, Florida Atlantic University, <sup>2</sup>Stiles-Nicholson Brain Institute, Florida Atlantic University

### **36.427 A dichoptic advantage for detecting out-of-phase modulations of density and contrast**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion*

Michael Morgan<sup>1</sup> ([michaelmorgan9331@gmail.com](mailto:michaelmorgan9331@gmail.com)), Kristina Zeljic-Cozma<sup>1</sup>, Joshua Solomon<sup>1</sup>; <sup>1</sup>City, University of London

### **36.428 Binocular contrast adaptation explained by separate gain controls before and after the site of binocular summation**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion*

Frederick Kingdom<sup>1</sup> ([fred.kingdom@mcgill.ca](mailto:fred.kingdom@mcgill.ca)), Paul Lerner<sup>2</sup>, Mark Georgeson<sup>3</sup>; <sup>1</sup>McGill University, <sup>2</sup>University of Alberta, <sup>3</sup>Aston University

## **3D: Shape**

### **36.429 Increasing motion parallax gain compresses space and 3D object shape**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion*

Xue Teng<sup>1</sup> ([xteng@eecs.yorku.ca](mailto:xteng@eecs.yorku.ca)), Robert Allison<sup>1</sup>, Laurie Wilcox<sup>1</sup>; <sup>1</sup>Centre for Vision Research, York University

### **36.430 Evidence of lack of integration of binocular disparity and motion parallax in object segmentation**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion*

Teodora Neagu<sup>1</sup> ([teo.neagu@rogers.com](mailto:teo.neagu@rogers.com)), Rebecca Hornsey<sup>1</sup>, Arleen Aksay<sup>1</sup>, Laurie M Wilcox<sup>1</sup>; <sup>1</sup>Department of Psychology, Centre for Vision Research, York University, Toronto, Canada

### **36.431 Surface Attitude Judgements in Real-World Scenes**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion*

C. Stella Qian<sup>1</sup> ([c.qian3@aston.ac.uk](mailto:c.qian3@aston.ac.uk)), James H. Elder<sup>2</sup>, Erich W. Graf<sup>3</sup>, Wendy J. Adams<sup>3</sup>, Andrew J. Schofield<sup>1</sup>; <sup>1</sup>Aston University, UK, <sup>2</sup>York University, Canada, <sup>3</sup>University of Southampton, UK

### **36.432 The size of a novel object is learned rapidly, and unlearned slowly, for purposes of computing apparent distance.**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion*

Albert Yonas<sup>1</sup> ([yonas@umn.edu](mailto:yonas@umn.edu)), Sahana Lawrence<sup>1</sup>, Emily Martin<sup>1</sup>, Carl Granrud<sup>2</sup>, Ben Backus<sup>3</sup>, Sherryse

Corrow<sup>4</sup>, Joshua Weekes<sup>1</sup>; <sup>1</sup>Arizona State University, <sup>2</sup>University of Northern Colorado, <sup>3</sup>Vivid Vision, Inc., <sup>4</sup>Bethel College

### **36.433 Size perception of 3D objects in general poses**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion*

Dawson Lin<sup>1</sup>, Akihito Maruya<sup>2</sup>, Qasim Zaidi<sup>2</sup>; <sup>1</sup>Dwight-Englewood School, Englewood, USA, <sup>2</sup>SUNY College of Optometry

### **36.434 The Role of Orthogonality and Compactness in Recovering 3D Symmetrical Shapes**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion*

Mark Beers<sup>1</sup> ([beersm@uci.edu](mailto:beersm@uci.edu)), Zygmunt Pizlo<sup>1</sup>; <sup>1</sup>University of California, Irvine

### **36.435 Perceptual Learning of Feelies**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion*

Catherine Dowell<sup>1</sup> ([catherine.dowell@usm.edu](mailto:catherine.dowell@usm.edu)), Alen Hajnal<sup>1</sup>; <sup>1</sup>University of Southern Mississippi

### **36.436 Dynamic graph convolutional networks do not recognize global 3D shapes**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion*

Shuhao Fu<sup>1</sup> ([fushuhao@ucla.edu](mailto:fushuhao@ucla.edu)), Zhiqi Zhang<sup>1</sup>, Philip Kellman<sup>1</sup>, Hongjing Lu<sup>1</sup>; <sup>1</sup>University of California, Los Angeles

### **36.437 The effects of lighting direction and rotation on the perceived 3D shape of faces**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion*

Jordi Asher<sup>1</sup>, Abigail Webb<sup>2</sup>, Paul Hibbard<sup>1</sup>; <sup>1</sup>University of Essex, <sup>2</sup>Institute of Health and Wellbeing, University of Suffolk

### **36.438 Unsupervised learning can predict properties of non-rigid mirror objects in ambiguous conditions**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion*

Omer F. Yildiran<sup>1,2</sup> ([omer.yildiran@ens.psl.eu](mailto:omer.yildiran@ens.psl.eu)), Katherine R. Storrs<sup>3</sup>, Roland W Fleming<sup>2</sup>, Katja Doerschner<sup>2</sup>; <sup>1</sup>École normale supérieure - PSL, Paris, France, <sup>2</sup>Justus Liebig University, Giessen, Germany, <sup>3</sup>University of Auckland, Auckland, New Zealand

### **36.439 Sphere Stimuli in the Mental Rotation Task: A new set of Ecologically Valid stimuli with Comparative Performance to Traditional Cube Stimuli**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion*

Brandon Eich<sup>1</sup> ([beich1@lsu.edu](mailto:beich1@lsu.edu)), Melissa Beck<sup>1</sup>, Xinrui Jiang<sup>2</sup>, Gaojie Fan<sup>1</sup>; <sup>1</sup>Louisiana State University, <sup>2</sup>DataCubed Health

### **36.440 Viewpoint adaptation reveals potential representational differences between 2D images and 3D objects**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion*

Zhiqing Deng<sup>1</sup> ([zhiqingdeng@m.scnu.edu.cn](mailto:zhiqingdeng@m.scnu.edu.cn)), Jie Gao<sup>1</sup>, Anthony Li<sup>2</sup>, Yan Chen<sup>1</sup>, Boyu Gao<sup>3</sup>, Jody Culham<sup>4,5</sup>, Juan

Chen<sup>1,6</sup>; <sup>1</sup>Center for the Study of Applied Psychology, Guangdong Key Laboratory of Mental Health and Cognitive Science, and the School of Psychology, South China Normal University, Guangzhou, Guangdong Province, 510631, China, <sup>2</sup>School of Medicine, Queen's University, Kingston, ON, K7L 3J8, Canada, <sup>3</sup>College of Information Science and Technology, Jinan University, Guangzhou, China, <sup>4</sup>The Brain and Mind Institute, The University of Western Ontario, London, ON, N6A 5B7 Canada, <sup>5</sup>Department of Psychology, The University of Western Ontario, London, ON, N6A 5C2, Canada, <sup>6</sup>Key Laboratory of Brain, Cognition and Education Sciences (South China Normal University), Ministry of Education

### **36.441 The color/shading effect and oriented double opponent neurons: a noise analysis**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion*

Evan Gerritz<sup>1</sup> ([evgerritz@gmail.com](mailto:evgerritz@gmail.com)), Luciano Dyballa<sup>1</sup>, Steven W. Zucker<sup>1</sup>; <sup>1</sup>Yale University

## **Perception and Action: Navigation and flow**

### **36.442 Visual Influence Networks in Walking Crowds**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion*

Kei Yoshida<sup>1</sup> ([kei\\_yoshida@brown.edu](mailto:kei_yoshida@brown.edu)), William H. Warren<sup>1</sup>; <sup>1</sup>Brown University

### **36.443 Social affordances in human wayfinding**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion*

Serena DeStefani<sup>1</sup> ([sd911@rutgers.edu](mailto:sd911@rutgers.edu)), Karin Stromswold<sup>1</sup>, Jacob Feldman<sup>1</sup>; <sup>1</sup>Rutgers University

### **36.444 Steering through multiple waypoints without model-based trajectory planning**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion*

Brett Fajen<sup>1</sup> ([fajenb@rpi.edu](mailto:fajenb@rpi.edu)), A.J. Jansen<sup>1</sup>; <sup>1</sup>Rensselaer Polytechnic Institute

### **36.445 Visual control of steering through multiple waypoints**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion*

AJ Jansen<sup>1</sup> ([jansea@rpi.edu](mailto:janseaj@rpi.edu)), Nathaniel Powell<sup>2</sup>, Brett Fajen<sup>1</sup>; <sup>1</sup>Rensselaer Polytechnic Institute, <sup>2</sup>University of Texas at Austin

### **36.446 Effect of viewing a stretched top-down map on spatial learning of a virtual environment by navigation**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion*

Jie Ding<sup>1,2</sup> ([jjieding11@gmail.com](mailto:jjieding11@gmail.com)), Jeffrey A Saunders<sup>1</sup>; <sup>1</sup>The University of Hong Kong, <sup>2</sup>The Education University of Hong Kong

### **36.447 Qualitative Inconsistency Detection as a novel method for identifying the information used in locomotor interception**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion*

Reinoud J. Bootsma<sup>1</sup>, Remy Casanova<sup>1</sup>, Albertha A. M. van Opstal<sup>1</sup>, Frank T. J. M. Zaal<sup>2</sup>; <sup>1</sup>Aix Marseille University, CNRS, France, <sup>2</sup>University Medical Center Groningen, The Netherlands

### **36.448 The Impact of High-Contrast Linear Floor Patterns on Human Gait Kinematics**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion*

Greig Dickson<sup>1</sup> ([greig.dickson@bristol.ac.uk](mailto:greig.dickson@bristol.ac.uk)), Evgeniya Anisimova<sup>1</sup>, Ute Leonards<sup>1</sup>; <sup>1</sup>University of Bristol

### **36.449 Vection does not facilitate flow parsing**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion*

Hongyi Guo<sup>1</sup> ([hguo06@yorku.ca](mailto:hguo06@yorku.ca)), Robert Allison<sup>1</sup>; <sup>1</sup>Centre for Vision Research, York University

### **36.450 Neural efficiency in an aviation task with different levels of difficulty: Assessing different biometrics during a performance task**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion*

Mohammad Javad Darvishi Bayazi<sup>1,2,3</sup>, Andrew Law<sup>4</sup>, Sergio Mejia Romero<sup>1</sup>, Sion Jennings<sup>4</sup>, Irina Rish<sup>2,3</sup>, Jocelyn Faubert<sup>1,3</sup>; <sup>1</sup>Faubert Lab, Université de Montréal, Montréal, QC, Canada, <sup>2</sup>Mila - Québec AI Institute, Montréal, QC, Canada, <sup>3</sup>Université de Montréal, Montreal, QC, Canada, <sup>4</sup>National Research Council Canada (NRC), Ottawa, OT, Canada

## **Face Perception: Insights from artificial neural networks**

### **36.451 In Silico Approach for Understanding the Associations Between Vision and Emotions Underlying the Uncanny Valley Effect**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion*

Takuya Igaue<sup>1,2</sup> ([t-igaue@aist.go.jp](mailto:t-igaue@aist.go.jp)), Ryusuke Hayashi<sup>2</sup>; <sup>1</sup>The University of Tokyo, <sup>2</sup>National Institute of Advanced Industrial Science and Technology

### **36.452 An Enhanced Dataset for Inferential Emotion Tracking in Humans and Machines**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion*

Ethan Shedd<sup>1</sup> ([shedd@berkeley.edu](mailto:shedd@berkeley.edu)), Zhihang Ren<sup>1</sup>, Jefferson Ortega<sup>1</sup>, Ananya Sharma<sup>1</sup>, Wish Wang<sup>1</sup>, Stella Yu<sup>1,2</sup>, David Whitney<sup>1</sup>; <sup>1</sup>University of California, Berkeley, <sup>2</sup>University of Michigan, Ann Arbor

### **36.454 Deep convolutional neural networks are sensitive to configural properties of faces**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion*

Virginia Strehle<sup>1</sup> ([ves180000@utdallas.edu](mailto:ves180000@utdallas.edu)), Natalie Bendiksen<sup>1</sup>, Alice O'Toole<sup>1</sup>; <sup>1</sup>The University of Texas at Dallas

### **36.455 Recognizing people by body shape using deep networks of images and words**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion*

Blake Myers<sup>1</sup> ([blake.myers@utdallas.edu](mailto:blake.myers@utdallas.edu)), Matthew Hill<sup>1</sup>, Veda Gandhi<sup>1</sup>, Thomas Metz<sup>1</sup>, Lucas Jaggernaut<sup>1</sup>, Carlos Castillo<sup>2</sup>, Alice O'Toole<sup>1</sup>; <sup>1</sup>University of Texas at Dallas, <sup>2</sup>Johns Hopkins University

### **36.456 Comparison of human observers and a deep learning model in recognition of static robot facial expressions**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion*

Dongsheng Yang<sup>1,2</sup> ([yang.dongsheng.46w@st.kyoto-u.ac.jp](mailto:yang.dongsheng.46w@st.kyoto-u.ac.jp)), Wataru Sato<sup>1,2</sup>, Takashi Minato<sup>2</sup>, Shushi Namba<sup>2</sup>,

Shin'ya Nishida<sup>1,3</sup>; <sup>1</sup>Kyoto University, <sup>2</sup>Guardian Robot Project, RIKEN, <sup>3</sup>NTT Communication Science Laboratories, Nippon Telegraph and Telephone Corporation, Atsugi, Japan

### **36.457 Comparing Humans and Deep Neural Networks on face recognition under various distance and rotation viewing conditions**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion*

Michal Fux<sup>1</sup> ([fux.michal@gmail.com](mailto:fux.michal@gmail.com)), Suayb S Arslan<sup>1</sup>, Hojin Jang<sup>1</sup>, Xavier Boix<sup>1</sup>, Avi Cooper<sup>1</sup>, Matt J Groth<sup>1</sup>, Pawan Sinha<sup>1</sup>; <sup>1</sup>MIT

### **36.458 Artifact magnification on deepfake videos increases human detection and subjective confidence**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion*

Emilie Josephs<sup>1</sup>, Camilo Fosco<sup>1</sup>, Aude Oliva<sup>1</sup>; <sup>1</sup>CSAIL, MIT

### **36.459 Videos, Deepfakes, and Dynamic Morphs: Neural and Perceptual Differences for Real and Artificial Faces.**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion*

Casey Becker<sup>1</sup>, Russell Conduit<sup>1</sup>, Philippe A Chouinard<sup>2</sup>, Robin Laycock<sup>1</sup>; <sup>1</sup>RMIT University, <sup>2</sup>La Trobe University

## **Perceptual Organization: Shape, figure/ground, occlusion**

### **36.460 Spatial structure aids shape perception and feature extraction**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion*

Garance Merholz<sup>1</sup> ([gmerholz@gmail.com](mailto:gmerholz@gmail.com)), Árni Kristjánsson<sup>1</sup>, David Pascucci<sup>2</sup>; <sup>1</sup>Icelandic Vision Laboratory, School of Health Sciences, University of Iceland, <sup>2</sup>Laboratory of Psychophysics, Brain Mind Institute, School of Life Sciences, École Polytechnique Fédérale de Lausanne (EPFL)

### **36.461 Probing perceptual mechanism of shape-contingent color after-images via interconnected recursive filters**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion*

Angelica Godinez<sup>1,2</sup> ([angelica.godinez@hu-berlin.de](mailto:angelica.godinez@hu-berlin.de)), Aravind Battaje<sup>1,3</sup>, Oliver Brock<sup>1,3</sup>, Martin Rolfs<sup>1,2</sup>; <sup>1</sup>Cluster of Excellence Science of Intelligence, Technische Universität Berlin, Germany, <sup>2</sup>Department of Psychology, Humboldt Universität zu Berlin, Germany, <sup>3</sup>Robotics and Biology Laboratory, Technische Universität Berlin, Germany

### **36.462 Global Factors in Perceptual Shape Completion**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion*

Tenzin Chosang<sup>1</sup> ([tencho@my.yorku.ca](mailto:tencho@my.yorku.ca)), Keyi Liu<sup>1</sup>, James Elder<sup>1</sup>; <sup>1</sup>York University

### **36.463 Processing of coarse and fine shape features by humans and deep networks: A shape frequency analysis**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion*

JAMES ELDER<sup>1</sup> ([jelder@yorku.ca](mailto:jelder@yorku.ca)), Nicholas Baker<sup>2</sup>, John Wilder<sup>3</sup>, Tenzin Chosang<sup>1</sup>; <sup>1</sup>York University, Canada, <sup>2</sup>Loyola University, <sup>3</sup>Northeastern University

### **36.464 Up is best**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion*

Stuart Anstis<sup>1</sup> ([sanstis@ucsd.edu](mailto:sanstis@ucsd.edu)), Patrick Cavanagh; <sup>1</sup>UCSD, <sup>2</sup>York University

### **36.465 Color-Object Semantics Affects Object Detection**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion*

Karen B. Schloss<sup>1</sup> ([kschloss@wisc.edu](mailto:kschloss@wisc.edu)), Carter M. Thompson<sup>2</sup>, Jingming Xue<sup>2</sup>, Mary A. Peterson<sup>2</sup>; <sup>1</sup>University of Wisconsin-Madison, <sup>2</sup>University of Arizona

### **36.466 Relative luminance of ambiguous figure/ground regions impacts the ability of the watercolor illusion to bias figure assignment**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion*

Patsy Folds<sup>1</sup> ([pefold8941@ung.edu](mailto:pefold8941@ung.edu)), Courtney Nutt<sup>2</sup>, Tanner Lumpkin<sup>3</sup>, Ralph Hale<sup>4</sup>; <sup>1</sup>University of North Georgia

### **36.467 Occlusion impairs numerical discrimination of objects in real-world scenes**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion*

Lauren Aulet<sup>1</sup> ([laulet@andrew.cmu.edu](mailto:laulet@andrew.cmu.edu)), Evren Konuk<sup>1</sup>, Jessica Cantlon<sup>1</sup>; <sup>1</sup>Carnegie Mellon University

### **36.468 A systematic bias in the perceived location of a triangle's occluded vertex.**

*Sunday, May 21, 2023, 2:45 – 6:45 pm, Pavilion*

Tess L. White<sup>1</sup> ([tessw@unr.edu](mailto:tessw@unr.edu)), Chidera J. Abiakam<sup>1</sup>, Madalyn C. Sawatzky<sup>1</sup>, Drew G. Asborn<sup>1</sup>, Lars Strother<sup>1</sup>, Gideon Paul Caplovitz<sup>1</sup>; <sup>1</sup>University of Nevada, Reno

## **Monday Morning Posters in Banyan Breezeway**

### **Object Recognition: Models**

#### **43.301 Visual Analogy Between Object Parts**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Hongjing Lu<sup>1</sup> ([hongjing@ucla.edu](mailto:hongjing@ucla.edu)), Shuhao Fu<sup>1</sup>; <sup>1</sup>University of California, Los Angeles

#### **43.302 A study of humans and convolutional neural networks on how to recognize blurry objects at the threshold of visibility**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Hojin Jang<sup>1</sup> ([jangh@mit.edu](mailto:jangh@mit.edu)), Frank Tong<sup>2</sup>; <sup>1</sup>Department of Brain and Cognitive Sciences, MIT, <sup>2</sup>Department of Psychology and Vanderbilt Vision Research Center, Vanderbilt University

#### **43.303 Evaluating machine comprehension of sketch meaning at different levels of abstraction**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Xuanchen Lu<sup>1</sup> ([xul076@ucsd.edu](mailto:xul076@ucsd.edu)), Kushin Mukherjee<sup>2</sup>, Rio Aguina-Kang<sup>1</sup>, Holly Huey<sup>1</sup>, Judith E. Fan<sup>1</sup>; <sup>1</sup>University of California, San Diego, <sup>2</sup>University of Wisconsin-Madison

#### **43.304 Face-deprived networks show distributed but not clustered face-selective**

## maps

Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Fenil R. Doshi<sup>1</sup> (fenil\_doshi@fas.harvard.edu), Talia Konkle<sup>1</sup>; <sup>1</sup>Harvard University

### 43.305 Feature Visualizations do not sufficiently explain hidden units of Artificial Neural Networks

Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Thomas Klein<sup>1,2</sup> (t.klein@uni-tuebingen.de), Wieland Brendel<sup>2</sup>, Felix Wichmann<sup>1</sup>; <sup>1</sup>Neural Information Processing Group, University of Tübingen, <sup>2</sup>Max Planck Institute for Intelligent Systems, Tübingen

### 43.306 Is it always computationally advantageous to use segregated pathways to process different visual stimulus attributes separately?

Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Zhixian Han<sup>1</sup> (han594@purdue.edu), Anne Sereno<sup>1</sup>; <sup>1</sup>Purdue University

### 43.307 Language Models of Visual Cortex: Where do they work? And why do they work so well where they do?

Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Colin Conwell<sup>1</sup> (conwell@g.harvard.edu), Jacob S. Prince<sup>1</sup>, George A. Alvarez<sup>1</sup>, Talia Konkle<sup>1</sup>; <sup>1</sup>Harvard University

### 43.308 Phase-Dependent Asymmetry of Pattern Masking in Natural Images Explained by Intrinsic Position Uncertainty

Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Anqi Zhang<sup>1,2</sup> (anqizhang@utexas.edu), Eric Seemiller<sup>3</sup>, Wilson Geisler<sup>1</sup>; <sup>1</sup>Center for Perceptual Systems, University of Texas at Austin, <sup>2</sup>Department of Physics, University of Texas at Austin, <sup>3</sup>711th Human Performance Wing, Air Force Research Laboratory

### 43.309 Statistical inference on representational geometries

Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Heiko Schütt<sup>1,2</sup> (heiko.schuett@nyu.edu), Alexander D. Kipnis<sup>3</sup>, Jörn Diedrichsen<sup>4</sup>, Nikolaus Kriegeskorte<sup>2</sup>; <sup>1</sup>New York University, <sup>2</sup>Zuckerman Institute, Columbia University, <sup>3</sup>Max Planck Institute for Biological Cybernetics, <sup>4</sup>Western University

### 43.310 The role of scene context in object recognition by humans and convolutional neural networks

Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Haley G. Frey<sup>1</sup>, Hojin Jang<sup>1</sup>, Hui-Yuan Miao<sup>1</sup>, Frank Tong<sup>1</sup>; <sup>1</sup>Vanderbilt University

### 43.311 Uncovering high-level visual cortex preferences by training convolutional neural networks on large neuroimaging data

Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

K. Seeliger<sup>1</sup>, R. Leipe<sup>1,2</sup>, J. Roth<sup>1</sup>, M. N. Hebart<sup>1,3</sup>; <sup>1</sup>Vision and Computational Cognition Group, Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany, <sup>2</sup>Leipzig University, Germany, <sup>3</sup>Department of Medicine, Justus Liebig University Giessen, Germany



### **43.312 Visual angle and image context alter the alignment between deep convolutional neural networks and the macaque ventral stream**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Sara Djambazovska<sup>1,2</sup> ([sara\\_djambazovska@hms.harvard.edu](mailto:sara_djambazovska@hms.harvard.edu)), Gabriel Kreiman<sup>2</sup>, Kohitij Kar<sup>3</sup>; <sup>1</sup>Swiss Federal Institute of Technology, Lausanne (EPFL), <sup>2</sup>Harvard Medical School, <sup>3</sup>York University

### **43.313 Predicting human camouflage detection with a principled computational model**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Abhranil Das<sup>1</sup> ([abhranil.das@utexas.edu](mailto:abhranil.das@utexas.edu)), Wilson S Geisler<sup>1</sup>; <sup>1</sup>University of Texas at Austin

### **43.314 A Generalized Framework for Optimizing and Informing the Implementation of QUEST**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Ethan Duwell<sup>1</sup> ([eduwell@mcw.edu](mailto:eduwell@mcw.edu)), Gennadiy Gurariy<sup>1</sup>, Adam Greenberg<sup>1</sup>; <sup>1</sup>Medical College of Wisconsin

### **43.315 Top-down and within-layer recurrent connections in artificial networks are needed to solve challenging visual tasks**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Andrea Ivan Costantino<sup>1</sup> ([andreaivan.costantino@kuleuven.be](mailto:andreaivan.costantino@kuleuven.be)), Hans Op de Beeck<sup>1</sup>; <sup>1</sup>KU Leuven

## **Scene Perception: Spatiotemporal factors**

### **43.316 Comparing explicit and implicit ensemble perception**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Shaul Hochstein<sup>1</sup> ([shaulhochstein@gmail.com](mailto:shaulhochstein@gmail.com)), Noam Khayat<sup>1</sup>, Marina Pavlovskaya<sup>1</sup>; <sup>1</sup>ELSC Safra Center for Brain Research & Life Sciences Institute, Hebrew University, Jerusalem

### **43.317 The influence of scene context on individual and ensemble encoding of object positions**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Yanina E. Tena Garcia<sup>1</sup> ([yanina.e.tena-garcia@psychol.uni-giessen.de](mailto:yanina.e.tena-garcia@psychol.uni-giessen.de)), Bianca R. Baltaretu<sup>1</sup>, Katja Fiehler<sup>1</sup>; <sup>1</sup>Experimental Psychology, Justus Liebig University Giessen, Giessen, Germany

### **43.318 Scene memory for intrinsic and extrinsic boundaries**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Carmela Gottesman<sup>1</sup> ([cvgottesman@sc.edu](mailto:cvgottesman@sc.edu)); <sup>1</sup>University of South Carolina Salkehatchie

### **43.319 How to build a scene: Relational representations are constructed in a canonical order**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Zekun Sun<sup>1</sup> ([zekun@jhu.edu](mailto:zekun@jhu.edu)), Chaz Firestone<sup>1</sup>, Alon Hafri<sup>2</sup>; <sup>1</sup>Johns Hopkins University, <sup>2</sup>University of Delaware

### **43.320 Where was the moose? The time course of dynamic road scene perception**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Benjamin Wolfe<sup>1</sup> ([benjamin.wolfe@utoronto.ca](mailto:benjamin.wolfe@utoronto.ca)), Cristeidy Gonzalez<sup>1</sup>, Anna Kosovicheva<sup>1</sup>; <sup>1</sup>University of Toronto Mississauga

### **43.321 Neural dynamics of natural scene processing across cortical areas as revealed by EEG decoding**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Taiki Orima<sup>1,2</sup>, Isamu Motoyoshi<sup>1</sup>; <sup>1</sup>The University of Tokyo, <sup>2</sup>Japan Society for the Promotion of Science

### **43.323 Central Vision Loss Worsens Scene Understanding and Increases Eye Movement Variability**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Byron Johnson<sup>1</sup> ([byron\\_johnson@ucsb.edu](mailto:byron_johnson@ucsb.edu)), Puneeth N. Chakravarthula<sup>1</sup>, Shravan Murlidaran<sup>1</sup>, Ansh Soni<sup>1</sup>, Michael Beyeler<sup>1</sup>, Miguel P. Eckstein<sup>1</sup>; <sup>1</sup>University of California, Santa Barbara

### **43.324 "Visual verbs": Dynamic event types (such as twisting vs. rotating) are extracted quickly and spontaneously during visual perception**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Huichao Ji<sup>1</sup> ([huichao.ji@yale.edu](mailto:huichao.ji@yale.edu)), Brian Scholl<sup>1</sup>; <sup>1</sup>Yale University

### **43.325 Spatiotemporal continuity of background image sequence influences the criterion of object change detection**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Jieun Cho<sup>1</sup> ([jieuncho@yonsei.ac.kr](mailto:jieuncho@yonsei.ac.kr)), Sang Chul Chong<sup>1,2</sup>; <sup>1</sup>Graduate Program in Cognitive Science, Yonsei University, <sup>2</sup>Department of Psychology, Yonsei University

### **43.326 Numerosity Estimation in Accumulated Spatial Arrays: Does Anchoring Limit Accuracy?**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Frank Durgin<sup>1</sup> ([fdurgin1@swarthmore.edu](mailto:fdurgin1@swarthmore.edu)), John Grey Crosby<sup>1</sup>; <sup>1</sup>Swarthmore College

## **Attention: Temporal, templates, memory**

### **43.328 Former target representations reach forward in time and proactively interfere with attentional guidance**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Zengbo Xie<sup>1</sup> ([zengbo.xie@vanderbilt.edu](mailto:zengbo.xie@vanderbilt.edu)), Geoffrey Woodman<sup>2</sup>; <sup>1</sup>Vanderbilt University

### **43.329 Perceptual noise disrupts flanker suppression: Evidence from a novel type of noise in the colour domain and Bayesian modelling**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Dietmar Heinke<sup>1</sup> ([d.g.heinke@bham.ac.uk](mailto:d.g.heinke@bham.ac.uk)), Jordan Deakin<sup>1</sup>; <sup>1</sup>University of Birmingham

### **43.330 The Role of Object Stability in the Allocation of Attention**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Ece Yucer<sup>1</sup> ([ece.yucer@mail.utoronto.ca](mailto:ece.yucer@mail.utoronto.ca)), Jay Pratt<sup>1</sup>; <sup>1</sup>University of Toronto

### **43.331 Attentional control settings determine not only what captures attention, but where attention goes once captured**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Samantha Joubran<sup>1</sup> ([sjoubran@uoguelph.ca](mailto:sjoubran@uoguelph.ca)), Anna Katzatchkova<sup>1</sup>, Fatima Abboud<sup>2</sup>, Naseem Al-Aidroos<sup>1</sup>;  
<sup>1</sup>University of Guelph, <sup>2</sup>McGill University

### **43.332 Visual versus verbal attentional templates guiding visual search**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Anna Grubert<sup>1</sup> ([anna.k.grubert@durham.ac.uk](mailto:anna.k.grubert@durham.ac.uk)), Daisy McGonigal<sup>1</sup>, Mikel Jimenez<sup>1</sup>; <sup>1</sup>Durham University

### **43.333 Enhanced representation of visual stimuli near a suppressed distractor**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Xiaojin Ma<sup>1</sup> ([xiaojinma@wustl.edu](mailto:xiaojinma@wustl.edu)), Richard A. Abrams<sup>1</sup>; <sup>1</sup>Washington University in St. Louis

### **43.334 Assessing the Role of Long-Term Memory and Visual Working-Memory Attentional Templates in Guiding Attentional Capture and Decision Making**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Jessica Kespe<sup>1</sup>, Niyatee Narkar<sup>3</sup>, Naseem Al-Aidroos<sup>2</sup>; <sup>1</sup>University of Guelph

### **43.335 Meta-analytic Evidence for Working Memory-Driven Visual Attention Capture**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Tianye Ma<sup>1</sup> ([tma039@ucr.edu](mailto:tma039@ucr.edu)), Weiwei Zhang; <sup>1</sup>University of California, Riverside

## **Attention: Features**

### **43.336 A top-down attentional network selects vs. reduces the same features for different visual categorizations of the same scenes**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Yaocong Duan<sup>1</sup> ([y.duan.1@research.gla.ac.uk](mailto:y.duan.1@research.gla.ac.uk)), Robin Ince<sup>1</sup>, Joachim Gross<sup>2</sup>, Philippe Schyns<sup>1</sup>; <sup>1</sup>School of Psychology and Neuroscience, University of Glasgow, <sup>2</sup>Institute for Biomagnetism and Biosignalanalysis, University of Muenster, Germany

### **43.337 Are attentional templates based on physical feature values or perceptual interpretations?**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Vladislav Khvostov<sup>1,2</sup>, Árni Gunnar Ásgeirsson<sup>3</sup>, Árni Kristjánsson<sup>1</sup>; <sup>1</sup>Icelandic Vision Lab, University of Iceland, <sup>2</sup>HSE University, Russia, <sup>3</sup>University of Akureyri, Iceland

### **43.338 Feature-based attention modulates population spatial frequency tuning**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Luis D. Ramirez<sup>1</sup> ([luisdr@bu.edu](mailto:luisdr@bu.edu)), Feiyi Wang<sup>2</sup>, Sam Ling<sup>1</sup>; <sup>1</sup>Boston University, <sup>2</sup>Tufts University

### **43.339 Feature-based suppression and salience guide attention simultaneously.**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Aniruddha Ramgir<sup>1</sup> ([aniruddha.ramgir@gmail.com](mailto:aniruddha.ramgir@gmail.com)), Dominique Lamy<sup>1</sup>; <sup>1</sup>Tel Aviv University

### **43.340 Highly efficient attentional selection of colors despite high target-distractor similarity**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Angus Chapman<sup>1</sup>, Viola Störmer<sup>2</sup>; <sup>1</sup>University of California San Diego, <sup>2</sup>Dartmouth College

### **43.342 Preparatory attention to visual features primarily relies on non-sensory representation**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Taosheng Liu<sup>1</sup>, Yilin Chen<sup>2</sup>, Mengyuan Gong<sup>2</sup>; <sup>1</sup>Michigan State University, <sup>2</sup>Zhejiang University

### **43.343 The interaction between color categories and attention**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Aimee Martin<sup>1</sup>, Karl Gegenfurtner<sup>1</sup>; <sup>1</sup>University of Giessen

### **43.344 The effects of visual dimensions on attentional dynamics**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Rachel Eddings<sup>1</sup> ([redning2@vols.utk.edu](mailto:redning2@vols.utk.edu)), Aaron Buss<sup>1</sup>; <sup>1</sup>University of Tennessee, Knoxville

### **43.345 Perceived distance modulates attention allocation**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Tasfia Ahsan<sup>1,2</sup> ([ahsant@my.yorku.ca](mailto:ahsant@my.yorku.ca)), Laurie M. Wilcox<sup>1,2</sup>, Erez Freud<sup>1,2</sup>; <sup>1</sup>York University, <sup>2</sup>Centre for Vision Research

### **43.346 Lower Search Efficiency for Conjunction vs. Feature Search for Convolutional Neural Networks**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Ansh K Soni<sup>1</sup> ([asoni@ucsb.edu](mailto:asoni@ucsb.edu)), Sudhanshu Srivastava<sup>1</sup>, Miguel P Eckstein<sup>1</sup>; <sup>1</sup>University of California - Santa Barbara

### **43.347 The greener, the slower: Distraction from Relational Templates in Visual Foraging**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Jan Tünnemann<sup>1</sup> ([jan.tuennermann@uni-marburg.de](mailto:jan.tuennermann@uni-marburg.de)), Inga Grössle<sup>1</sup>, Anna Schubö<sup>1</sup>; <sup>1</sup>Phillips University Marburg

## **Image Preference, Statistics and Aesthetics**

### **43.348 Individual differences in image preferences: a personalized image enhancement method**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Sarit F. A. Szpiro<sup>1,2</sup> ([sarit.szpiro@edu.haifa.ac.il](mailto:sarit.szpiro@edu.haifa.ac.il)), Amit Yashar<sup>1,2</sup>; <sup>1</sup>Special Education Department, University of

Haifa, <sup>2</sup>The Edmond J. Safra Brain Research Center, University of Haifa

### **43.349 The prototype effect in aesthetic preferences for visual scenes: A computational account**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Yi-Chia Chen<sup>1</sup> ([yichiachen@g.ucla.edu](mailto:yichiachen@g.ucla.edu)), Shuhao Fu<sup>1</sup>, Derek Feng<sup>2</sup>, Moriah Taylor<sup>1</sup>, Jeffrey Chang<sup>1</sup>, Xiaoyang Chi<sup>1</sup>, Hongjing Lu<sup>1</sup>; <sup>1</sup>University of California, Los Angeles, <sup>2</sup>Yale University

### **43.350 Aesthetic value modulates gaze patterns on proto-object locations**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Delaram Farzanfar<sup>1</sup> ([delaram.farzanfar@mail.utoronto.ca](mailto:delaram.farzanfar@mail.utoronto.ca)), Morteza Rezanejad<sup>1</sup>, Dirk B. Walther<sup>1</sup>; <sup>1</sup>Department of Psychology, University of Toronto

### **43.351 Attention improves after seeing images of nature that are not too captivating**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Claudia Damiano<sup>1</sup> ([claudia.damiano@kuleuven.be](mailto:claudia.damiano@kuleuven.be)), Johan Wagemans<sup>1</sup>; <sup>1</sup>KU Leuven

### **43.352 Perceiving style at different levels of information**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Yuguang Zhao<sup>1</sup> ([y.zhao-5@tudelft.nl](mailto:y.zhao-5@tudelft.nl)), Huib de Ridder<sup>1</sup>, Jeroen Stumpel<sup>2</sup>, Maarten Wijntjes<sup>1</sup>; <sup>1</sup>Delft University of Technology, <sup>2</sup>Utrecht University

### **43.353 Deep network representation of art style similarity judgments**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Anna Bruns<sup>1</sup> ([anna.bruns@nyu.edu](mailto:anna.bruns@nyu.edu)), Ming Gao<sup>1</sup>, Abhishek Dendukuri<sup>1</sup>, Jenna Eubank<sup>1</sup>; <sup>1</sup>New York University

### **43.354 The effects of quantity, order, and spatial proximity of elements on subjective complexity judgment**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Minseong Jin<sup>1</sup> ([minseongjin@korea.ac.kr](mailto:minseongjin@korea.ac.kr)), Jiwon Song<sup>1</sup>, Chai-Youn Kim<sup>1</sup>; <sup>1</sup>School of Psychology, Korea University, Seoul, Korea

### **43.355 The relationship between image statistics and aesthetic preference for art and natural scenes**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Alex Swartz<sup>1</sup> ([a.swartz@sussex.ac.uk](mailto:a.swartz@sussex.ac.uk)), Martina Guido<sup>1</sup>, Alice Skelton<sup>1</sup>, Jenny Bosten<sup>1</sup>, Anna Franklin<sup>1</sup>, John Maule<sup>1</sup>; <sup>1</sup>University of Sussex

### **43.356 The Disputed Quartet: Embracing individuality in beauty judgment**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Maria Pombo<sup>1</sup>, Denis Pelli<sup>1</sup>; <sup>1</sup>New York University

## **Undergraduate Just-In-Time 2**

### **43.357 Visual working memory retrieval as an accumulation-to-bound decision**

## **process: evidence from the P3b**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Luke Atack<sup>1</sup>, Stephen Emrich<sup>1</sup>; <sup>1</sup>Brock University

## **43.358 Brain-wide functional connectivity of single face patch neurons during rest**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Rebecca Bhik-Ghanie<sup>1</sup> ([rebecca.bhikghanie@nih.gov](mailto:rebecca.bhikghanie@nih.gov)), Daniel Zaldivar<sup>1</sup>, David Leopold<sup>1</sup>; <sup>1</sup>SCNI, Lab of Neuropsychology, NIMH, NIH

## **43.359 Manipulating uncertainty in value-driven attentional capture**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Nicole Massa<sup>1</sup>, Nick Crotty<sup>1</sup>, Ifat Levy<sup>2</sup>, Michael Grubb<sup>1,2</sup>; <sup>1</sup>Trinity College, <sup>2</sup>Yale School of Medicine

## **43.360 Familiarity and Scene Understanding**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Bridget Meighan<sup>1</sup>, Elissa Aminoff<sup>1</sup>; <sup>1</sup>Fordham University

## **43.361 Effects of covert visual spatial attention in multi-pseudo-letter processing.**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Katelyn Osuna<sup>1</sup> ([kosuna@stanford.edu](mailto:kosuna@stanford.edu)), Jason Yeatman<sup>1</sup>, Maha Ramamurthy<sup>1</sup>; <sup>1</sup>Division of Developmental Behavioral-Pediatrics, School of Medicine & Graduate School of Education, Stanford University.

## **43.362 Reflection Rumination increases Eye Saccade Curvature towards distractors in a Looking Task**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Isaias Perez<sup>1</sup>, Bryan George<sup>1</sup>, Cozy DeRosa<sup>1</sup>, Ashley Latibeaudiere<sup>1</sup>, Dr. Max Owens<sup>1</sup>; <sup>1</sup>University of South Florida

## **43.363 Eye Movement Analysis of Upright vs Inverted Expressions**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Angeline Yang<sup>1</sup>, Susana Chung<sup>1</sup>; <sup>1</sup>UC Berkeley

## **43.364 Characteristics of fixational eye movements in individuals with ADHD**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Kathlyn Bako<sup>1</sup> ([katbako@berkeley.edu](mailto:katbako@berkeley.edu)), Matthew Anderson<sup>1</sup>, Susana Chung<sup>1</sup>; <sup>1</sup>University of California, Berkeley

## **43.365 Symmetry Benefits Working Memory Representations of Object Orientation**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Shaya Samet<sup>1</sup>, Yara Iskandar<sup>1</sup>, Erez Freud<sup>1</sup>, Peter J Kohler<sup>1</sup>; <sup>1</sup>York University

## **43.366 Evaluating developmental shape selectivity from simultaneous multi-unit recordings along the ventral visual pathway**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

A. Ezra Sutter<sup>1</sup>, Gerick M. Lee<sup>2</sup>, Timothy D. Oleskiw<sup>2,3</sup>, Najib J. Majaj<sup>2</sup>, Lynne Kiorpes<sup>2</sup>, J. Anthony Movshon<sup>2</sup>; <sup>1</sup>Drew University, <sup>2</sup>Center for Neural Science, New York University, <sup>3</sup>Center for Computational Neuroscience,

Flatiron Institute

### **43.367 Are the Effects of Familiarity with the Size of a Novel Object on the Perception of Distance the Result of an Associative or Trigonometric Process ?**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Emily Martin<sup>1</sup>, Yunlong Zhang<sup>1</sup>, Sahana Lawrence<sup>1</sup>; <sup>1</sup>Arizona State University

### **43.368 Differences in preferred retinal loci of fixation in monocular versus binocular vision**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Maximilian Freiberg<sup>1,2</sup> ([maximilian.freiberg@web.de](mailto:maximilian.freiberg@web.de)), Aleksandr Gutnikov<sup>1</sup>, Christian Meltendorf<sup>2</sup>, Stephan Reiß<sup>2</sup>, Ralph Krüger<sup>2</sup>, Wolf M. Harmening<sup>1</sup>; <sup>1</sup>University Eye Clinic Bonn, <sup>2</sup>Berlin University of Applied Sciences and Technology

## **Monday Morning Posters in Pavilion**

### **Eye Movements: Individual differences, novel measurement**

#### **43.401 No evidence for a relation between individual differences in the central scene-viewing bias and head movement propensity**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion*

Patricia R. Mueller<sup>1</sup> ([patricia.mueller@physik.tu-chemnitz.de](mailto:patricia.mueller@physik.tu-chemnitz.de)), Sabine Grimm<sup>1</sup>, Wolfgang Einhäuser<sup>1</sup>; <sup>1</sup>Chemnitz University of Technology

#### **43.402 Arousal levels modulates saccadic main sequence and stationary gaze entropy in partially sleep-deprived drivers**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion*

Carolina Diaz-Piedra<sup>1,2</sup> ([dipie@ugr.es](mailto:dipie@ugr.es)), Francesco Angioi<sup>1</sup>, Marcelo A. C. Fernandes<sup>1,3</sup>, Christophe Prat<sup>4</sup>, Jaka Sodnik<sup>5</sup>, Leandro L. Di Stasi<sup>1,6</sup>; <sup>1</sup>University of Granada, <sup>2</sup>Arizona State University, <sup>3</sup>Federal University of Rio Grande do Norte, <sup>4</sup>Commissariat à l'énergie atomique et aux énergies alternatives, <sup>5</sup>University of Ljubljana, <sup>6</sup>Joint Centre University of Granada - Spanish Army Training and Doctrine Command

#### **43.403 Speed of Information Processing in Infants and Adults: Age Differences in Saccadic Reaction Time Sensitivity**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion*

Scott Adler<sup>1</sup> ([adler@yorku.ca](mailto:adler@yorku.ca)); <sup>1</sup>York University

#### **43.404 Spatial predictability modulates oculomotor deficits in low persistence displays**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion*

Clara Kuper<sup>1,2,3</sup> ([clara.kuper@student.hu-berlin.de](mailto:clara.kuper@student.hu-berlin.de)), Xiuyun Wu<sup>1</sup>, T. Scott Murdison<sup>1</sup>; <sup>1</sup>Realty Labs, Meta Platforms Inc., <sup>2</sup>Department of Psychology, Humboldt-Universität zu Berlin, Germany, <sup>3</sup>Berlin School of Mind and Brain, Humboldt-Universität zu Berlin, Germany

#### **43.405 Neuroiconica - Collaborative cloud tool for online analytics of eye tracking data**

Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion

Evgenii Shelepin<sup>1</sup> ([xensey@gmail.com](mailto:xensey@gmail.com)); <sup>1</sup>Neuroiconica, <sup>2</sup>Pavlov Institute of Physiology

### **43.406 Assessing the accuracy of eye-tracking through passive filter and active shutter-glasses.**

Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion

Sophie Kenny<sup>1</sup> ([skenny@vpixx.com](mailto:skenny@vpixx.com)), Jonathan Tong<sup>1</sup>, Amanda Estephan<sup>1</sup>; <sup>1</sup>VPixx, Canada

### **43.407 3D-Printable Non-invasive Head Immobilization System for Non-Human Primates**

Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion

Tyler Swedan<sup>1</sup> ([tyler.swedan@nih.gov](mailto:tyler.swedan@nih.gov)), Elia Shahbazi<sup>1</sup>, Timothy Ma<sup>2</sup>, Rosa Lafer-Sousa<sup>1</sup>, Reza Azadi<sup>1</sup>, Amy Ryan<sup>1</sup>, Drew Nguyen<sup>1</sup>, Arash Afraz<sup>1</sup>; <sup>1</sup>NIH/NIMH, <sup>2</sup>New York University

### **43.408 Investigation of camera-free eye tracking glasses compared to a video-based system**

Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion

Claudia Martin Calderon<sup>1</sup> ([ca6marti@uwaterloo.ca](mailto:ca6marti@uwaterloo.ca)), Abdullah Zafar<sup>1</sup>, Anne Marie Yeboah<sup>2</sup>, Kristine Dalton<sup>2</sup>, Elizabeth Irving<sup>2</sup>, Ewa Niechwiej-Szwedo<sup>1</sup>; <sup>1</sup>University Of Waterloo, Faculty of Health, <sup>2</sup>University Of Waterloo, School of Optometry & Vision Science

### **43.409 Individual differences in gaze behavior: Comparing high-level and sensory contributions**

Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion

Dyllan Simpson<sup>1</sup> ([dyllan.simpson@mail.utoronto.ca](mailto:dyllan.simpson@mail.utoronto.ca)), Benjamin Wolfe<sup>1</sup>, Anna Kosovicheva<sup>1</sup>; <sup>1</sup>University of Toronto Mississauga

### **43.410 vrGazeCore: an open-source package for virtual reality eye-tracking analysis**

Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion

Thomas L. Botch<sup>1</sup> ([thomas.l.botch@dartmouth.edu](mailto:thomas.l.botch@dartmouth.edu)), Amanda J. Haskins<sup>1</sup>, Deepasri Prasad<sup>1</sup>, Jeff Mentch<sup>1,2</sup>, Caroline E. Robertson<sup>1</sup>; <sup>1</sup>Dartmouth College, <sup>2</sup>Massachusetts Institute of Technology

### **43.411 Directional effects on saccadic sequence and post-saccadic oscillations**

Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion

Gao Mingjie<sup>1</sup> ([18640729509@163.com](mailto:18640729509@163.com)), Wang Ailing<sup>1</sup>, Zhu Weina<sup>2</sup>, Jan Drewes<sup>1</sup>; <sup>1</sup>Institute of Brain and Psychological Sciences, Sichuan Normal University, Chengdu, China, <sup>2</sup>School of Information Science, Yunnan University, Kunming, China

### **43.412 Effect of Lateral Saccade Direction on Saccade Profile and Post-Saccadic Overshoot in Young and Senior People**

Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion

Wang Ailing<sup>1</sup> ([joylin12@163.com](mailto:joylin12@163.com)), Gao Mingjie<sup>1</sup>, Zhu Weina<sup>2</sup>, Jan Drewes<sup>1</sup>; <sup>1</sup>Institute of Brain and Psychological Sciences, Sichuan Normal University, Chengdu, China, <sup>2</sup>School of Information Science, Yunnan University, Kunming, China



## Visual Working Memory: Serial dependence

### 43.413 Contrasting the roles of object-based attention, spatial distance, and hemifield in serial dependence

Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion

Christian Houborg<sup>1</sup> ([christianhouborg@hotmail.com](mailto:christianhouborg@hotmail.com)), Árni Kristjánson<sup>1</sup>, David Pascucci<sup>2</sup>; <sup>1</sup>Vision Sciences Laboratory, School of Health Sciences, University of Iceland, Reykjavik, Iceland., <sup>2</sup>Laboratory of Psychophysics, Ecole Polytechnique Fédérale de Lausanne (EPFL), Switzerland.

### 43.415 Previous and current action targets held in working memory determine repulsive and attractive serial dependence

Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion

Cora Fischer<sup>1</sup> ([cora.fischer@med.uni-frankfurt.de](mailto:cora.fischer@med.uni-frankfurt.de)), Sebastian Fohs<sup>1</sup>, Jochen Kaiser<sup>1</sup>, Christoph Bledowski<sup>1</sup>; <sup>1</sup>Institute of Medical Psychology, Goethe University Frankfurt

### 43.417 The state of working memory maintenance alters the direction of serial dependence

Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion

Kuo-Wei Chen<sup>1</sup> ([kchen172@asu.edu](mailto:kchen172@asu.edu)), Brian Carlson<sup>1</sup>, Gi-Yeul Bae<sup>1</sup>; <sup>1</sup>Arizona State University

### 43.418 Temporal dynamics of the visual representation of orientation ensemble perception

Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion

Ryuto Yashiro<sup>1</sup> ([ryuto-yashiro@g.ecc.u-tokyo.ac.jp](mailto:ryuto-yashiro@g.ecc.u-tokyo.ac.jp)), Masataka Sawayama<sup>1</sup>, Kaoru Amano<sup>1</sup>; <sup>1</sup>The University of Tokyo

### 43.419 The current top-down attentional set is shaped by previous selection episodes

Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion

Changrun Huang<sup>1,2</sup> ([c.huang@vu.nl](mailto:c.huang@vu.nl)), Dirk van Moorselaar<sup>1,2</sup>, Mieke Donk<sup>1,2</sup>, Jan Theeuwes<sup>1,2,3</sup>; <sup>1</sup>Vrije Universiteit Amsterdam, Amsterdam, the Netherlands, <sup>2</sup>Institute Brain and Behavior (iBBA), Amsterdam, the Netherlands, <sup>3</sup>William James Center for Research, ISPA-Instituto Universitario, Lisbon, Portugal

### 43.420 Positive serial dependence effects in rating food images for appeal and calories

Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion

David Alais<sup>1</sup> ([david.alais@sydney.edu.au](mailto:david.alais@sydney.edu.au)), Thomas Carlson<sup>1</sup>; <sup>1</sup>University of Sydney

### 43.421 Costs of manipulating representations of approximate visual magnitudes stored in visual working memory

Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion

Chen Cheng<sup>1</sup> ([chencheng.psy@gmail.com](mailto:chencheng.psy@gmail.com)), Xuechen Ding<sup>2</sup>, Melissa Kibbe<sup>3</sup>; <sup>1</sup>The Hong Kong University of Science and Technology, <sup>2</sup>Shanghai Normal University, <sup>3</sup>Boston University

## Visual Working Memory: Neural mechanisms

### **43.422 Investigating the effects of perceptual complexity versus conceptual meaning on the neural correlates of visual working memory**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion*

Alyssa Thibeault<sup>1</sup> ([wy20rd@brocku.ca](mailto:wy20rd@brocku.ca)), Keynen Lynett<sup>1</sup>, Chae Bush<sup>1</sup>, Christopher Keightley<sup>1</sup>, Bobby Stojanoski<sup>2</sup>, Stephen M. Emrich<sup>1</sup>; <sup>1</sup>Brock University, <sup>2</sup>Ontario Tech University

### **43.423 Intuitive physics guides visual tracking and working memory: The dynamics of neural processing in expectation violation**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion*

Halely Balaban<sup>1,2</sup> ([halely@mit.edu](mailto:halely@mit.edu)), Kevin Smith<sup>1</sup>, Joshua Tenenbaum<sup>1</sup>, Tomer Ullman<sup>2</sup>; <sup>1</sup>Massachusetts Institute of Technology (MIT), <sup>2</sup>Harvard

### **43.424 Neurophysiological mechanisms of action-modulated prioritization in visual working memory**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion*

Caterina Trentin<sup>1</sup> ([c.trentin@vu.nl](mailto:c.trentin@vu.nl)), Christian N.L. Olivers<sup>1</sup>, Heleen A. Slagter<sup>1</sup>; <sup>1</sup>Vrije Universiteit

### **43.425 Observability of Visual Working Memory Brain Circuitry With Functional Near-Infrared Spectroscopy**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion*

David Beeler<sup>1</sup> ([dbeeler@bu.edu](mailto:dbeeler@bu.edu)), Yuanyuan Gao<sup>1</sup>, Vaibhav Tripathi<sup>1</sup>, Alice Cronin-Golomb<sup>1</sup>, Theresa Ellis<sup>1</sup>, Swathi Kiran<sup>1</sup>, Alexander von Lühmann<sup>1,2</sup>, Meryem Yücel<sup>1</sup>, David Boas<sup>1</sup>, David Somers<sup>1</sup>; <sup>1</sup>Boston University, <sup>2</sup>Technische Universität Berlin

### **43.426 The interdependence of the memory reactivation of items and task rules**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion*

Yagmur Damla Senturk<sup>1</sup> ([yagmursenturk@sabanciuniv.edu](mailto:yagmursenturk@sabanciuniv.edu)), Nursima Ünver<sup>1,2</sup>, Can Demircan<sup>1</sup>, Tobias Egner<sup>3</sup>, Eren Günseli<sup>1</sup>; <sup>1</sup>Sabanci University, <sup>2</sup>University of Toronto, <sup>3</sup>Duke University

### **43.427 Characterizing the spatial organization of population codes in macaque prefrontal cortex during visuospatial tasks**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion*

Jinkang (Derrick) Xiang<sup>1</sup> ([jxiang27@uwo.ca](mailto:jxiang27@uwo.ca)), Megan Roussy<sup>1</sup>, Benjamin Corrigan<sup>1</sup>, Rogelio Luna<sup>1</sup>, Maryam Mofrad<sup>1</sup>, Lyle Muller<sup>1</sup>, Julio Martinez-Trujillo<sup>1</sup>, Marieke Mur<sup>1</sup>; <sup>1</sup>The University of Western Ontario

### **43.428 Theta-gamma phase-amplitude coupling as a marker of cognitive deficits in schizophrenia**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion*

Orestis Papaioannou<sup>1</sup>, Molly Erickson<sup>1</sup>; <sup>1</sup>University of Chicago

### **43.429 Dissociating the effects of degraded visual input on cognitive processes using EEG markers of selective attention and working memory**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion*

Sarah Sheldon<sup>1</sup> ([s.sheldon@northeastern.edu](mailto:s.sheldon@northeastern.edu)), MiYoung Kwon<sup>1</sup>; <sup>1</sup>Northeastern University

### **43.430 Visual representations shift from a retinal to a real-world reference frame during visual working memory**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion*

Maria V. Servetnik<sup>1,4</sup> ([servetnikmaria@gmail.com](mailto:servetnikmaria@gmail.com)), Nicolas Pollán Hauer<sup>2</sup>, Michael J. Wolff<sup>1</sup>, Chaipat Chunharas<sup>3</sup>, Rosanne L. Rademaker<sup>1</sup>; <sup>1</sup>Ernst Strüngmann Institute (ESI) for Neuroscience in Cooperation with the Max Planck Society, Frankfurt, Germany, <sup>2</sup>Centre de Recerca Matemàtica, Campus de Bellaterra, Barcelona, Spain, <sup>3</sup>Department of Medicine, King Chulalongkorn Memorial Hospital, Chulalongkorn University, Bangkok, Thailand, <sup>4</sup>Department of Cognitive Neuroscience, Vrije Universiteit Amsterdam, The Netherlands

### **43.431 Sad and fearful face distractors do not consume working memory resources in depressed adults**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion*

Chaoxiong Ye<sup>1,2,3</sup> ([chaoxiong.c.ye@jyu.fi](mailto:chaoxiong.c.ye@jyu.fi)), Qianru Xu<sup>4</sup>, Xueqiao Li<sup>2</sup>, Elisa Vuoriainen<sup>3</sup>, Qiang Liu<sup>1</sup>, Piia Astikainen<sup>2</sup>; <sup>1</sup>Sichuan Normal University, Chengdu, China, <sup>2</sup>University of Jyväskylä, Jyväskylä, Finland, <sup>3</sup>Tampere University, Tampere, Finland, <sup>4</sup>University of Oulu, Oulu, Finland

### **43.432 Shared neural representations of orientation and location information during working memory**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion*

Joana Pereira Seabra<sup>1,2</sup> ([joana.seabra@bccn-berlin.de](mailto:joana.seabra@bccn-berlin.de)), Vivien Chopurian<sup>1,2</sup>, Andreea-Maria Gui<sup>1,2</sup>, Alessandra S. Souza<sup>3,4</sup>, Thomas B. Christophel<sup>1,2</sup>; <sup>1</sup>Humboldt University of Berlin, <sup>2</sup>Bernstein Center for Computational Neuroscience Berlin, <sup>3</sup>University of Porto, <sup>4</sup>University of Zurich

### **43.433 Neural evidence for high-to-low level decoding in orientation working memory**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion*

Yan Yang<sup>1,3</sup> ([yangy@ibp.ac.cn](mailto:yangy@ibp.ac.cn)), Zhentao Zuo<sup>1,2,3</sup>, Tiangang Zhou<sup>1,2,3</sup>; <sup>1</sup>State Key Laboratory of Brain and Cognitive Science, Institute of Biophysics, Chinese academy of sciences, <sup>2</sup>Hefei Comprehensive National Science Center, Institute of Artificial Intelligence, <sup>3</sup>University of Chinese academy of sciences

### **43.434 Neural representations of orientation reflect the oblique effect during perception, and repulsion bias during working memory**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion*

Michael Wolff<sup>1</sup> ([michael-josef.wolff@esi-frankfurt.de](mailto:michael-josef.wolff@esi-frankfurt.de)), Rosanne Rademaker; <sup>1</sup>Ernst Strüngmann Institute for Neuroscience in cooperation with the Max Planck Society

### **43.435 A matter of availability: Sharper tuning for memorized than for perceived stimulus features.**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion*

Samson Chota<sup>1</sup> ([samson.chota@googlemail.com](mailto:samson.chota@googlemail.com)), Surya Gayet<sup>1</sup>, J. Leon Kenemans<sup>1</sup>, Christian N.L. Olivers<sup>2</sup>, Stefan Van der Stigchel<sup>1</sup>; <sup>1</sup>Utrecht University, <sup>2</sup>Vrije Universiteit Amsterdam

### **43.436 The spatial tuning of cortical responses during visual memory**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion*

Robert Woodry<sup>1</sup>, Clayton Curtis<sup>1</sup>, Jonathan Winawer<sup>1</sup>; <sup>1</sup>New York University

### **43.437 EEG Decoding Reveals Distinct Processes for Directing Spatial Attention and Encoding into Working Memory.**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion*

Henry Jones<sup>1</sup> ([henryjones@uchicago.edu](mailto:henryjones@uchicago.edu)), William Ngiam<sup>1</sup>, Edward Awh<sup>1</sup>; <sup>1</sup>University of Chicago

### **43.438 Oscillation Gates Efficacy of Optogenetically-Induced V4 Inputs to FEF**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion*

Phillip Comeaux<sup>1</sup> ([phillip.comeaux@utah.edu](mailto:phillip.comeaux@utah.edu)), Lauri Nurminen<sup>2</sup>, Frederick Federer<sup>1</sup>, Alessandra Angelucci<sup>1</sup>, Behrad Noudoost<sup>1</sup>; <sup>1</sup>University of Utah, <sup>2</sup>University of Houston

### **43.439 Connectomic Investigation of the Frontal Eye Field and Inferior Frontal Junction**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion*

Marco Bedini<sup>1,3</sup> ([marco.bedini@unitn.it](mailto:marco.bedini@unitn.it)), Emanuele Olivetti<sup>1,2</sup>, Paolo Avesani<sup>1,2</sup>, Daniel Baldauf<sup>1</sup>; <sup>1</sup>University of Trento, <sup>2</sup>Bruno Kessler Foundation, <sup>3</sup>University of California, San Diego

### **43.440 Visual Cortical Functional Connectivity With Cerebellar Cortex Reveals Multiple, Fine-Scale Cortico-Cerebellar Networks for Vision**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion*

Ryan Marshall<sup>1</sup> ([ryanmars@bu.edu](mailto:ryanmars@bu.edu)), Vaibhav Tripathi<sup>2</sup>, David Somers<sup>3</sup>; <sup>1</sup>Boston University

## **Visual Working Memory: Space, features, objects**

### **43.441 Color- and semantic-sharing bonuses in visual working memory: The deeper the processing, the greater the benefits for real-world objects**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion*

Hanane Ramzaoui<sup>1</sup> ([hanane.ramzaoui@univ-cotedazur.fr](mailto:hanane.ramzaoui@univ-cotedazur.fr)), Fabien Mathy<sup>2</sup>, Candice C. Morey<sup>3</sup>; <sup>1</sup>Louisiana State University, <sup>2</sup>Université Côte d'Azur, BCL, CNRS, <sup>3</sup>Cardiff University

### **43.442 Flexibility between feature-based and object-based representations in working memory for reinforcement learning**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion*

Kengo Shibata<sup>1</sup> ([kengo.shibata@lincoln.ox.ac.uk](mailto:kengo.shibata@lincoln.ox.ac.uk)), Verena Klar<sup>1</sup>, Sooraj Mahesh<sup>1</sup>, Masud Husain<sup>1</sup>, Sanjay G Manohar<sup>1</sup>; <sup>1</sup>University of Oxford

### **43.443 Meaningful objects are privileged in working memory: better incidental memory of recognizable relative to unrecognizable objects**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion*

Yong Hoon Chung<sup>1</sup> ([yong.hoon.chung.gr@dartmouth.edu](mailto:yong.hoon.chung.gr@dartmouth.edu)), Joyce Tam<sup>2</sup>, Brad Wyble<sup>2</sup>, Viola Stoermer<sup>1</sup>; <sup>1</sup>Dartmouth College, <sup>2</sup>Penn State University

### **43.444 Probing the prioritization of multiple spatial locations held in working memory.**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion*

Jordan Garrett<sup>1,2</sup>, Daniel Thayer<sup>1,2</sup>, Thomas Sprague<sup>1,2</sup>, Barry Giesbrecht<sup>1,2</sup>; <sup>1</sup>University of California, Santa Barbara, <sup>2</sup>Institute for Collaborative Biotechnologies

### **43.445 The Role of Low-Level Perceptual Similarities in the Visual Working Memory Mixed-Category Effect**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion*

Reut Peled<sup>1</sup> ([reutgadot@gmail.com](mailto:reutgadot@gmail.com)), Roy Luria<sup>1,2</sup>; <sup>1</sup>The school of Psychological Sciences, <sup>2</sup>The Sagol School of Neuroscience

### **43.446 Remembering where, but not what: how spatial and object visual memory change across delays in recall**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion*

Emma Megla<sup>1</sup> ([emmamegla22@gmail.com](mailto:emmamegla22@gmail.com)), Samuel R. Rosenthal<sup>1</sup>, Wilma A. Bainbridge<sup>1</sup>; <sup>1</sup>University of Chicago

### **43.447 Caricaturing shapes in visual memory**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion*

Subin Han<sup>1</sup>, Zekun Sun<sup>2</sup>, Chaz Firestone<sup>2</sup>; <sup>1</sup>University of Oregon, <sup>2</sup>Johns Hopkins University

### **43.448 Faces in Working Memory Cause Racial Biases in Subsequent Trustworthiness Judgments**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion*

Sanika Paranjape<sup>1</sup>, Sarah Shomstein<sup>1</sup>, Dwight Kravitz<sup>1</sup>; <sup>1</sup>The George Washington University

### **43.449 Scene and object false memory in a photo-realistic paradigm**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion*

Shaela Jalava<sup>1</sup> ([19stj@queensu.ca](mailto:19stj@queensu.ca)); <sup>1</sup>Queen's University

### **43.450 Microsaccade directions track spatial oculomotor-based rehearsal of non-spatial object features in visual working memory**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion*

Eelke de Vries<sup>1</sup> ([evs236@vu.nl](mailto:evs236@vu.nl)), Freek van Ede<sup>1</sup>; <sup>1</sup>Vrije Universiteit Amsterdam

### **43.451 Working memory and the source of color categories in macaques**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion*

Daniel Garside<sup>1</sup> ([dannygarside@outlook.com](mailto:dannygarside@outlook.com)), Hannah Selwyn<sup>1</sup>, Neha Sriram<sup>1</sup>, Alexis Green<sup>1</sup>, Josh Fuller-Deets<sup>1</sup>, Bevil Conway<sup>1</sup>; <sup>1</sup>National Eye Institute, National Institutes of Health

### **43.452 Effective Prioritization of Temporal Groups in Visual Working Memory**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion*

Joyce Tam<sup>1</sup> ([joyce.m.y.tam@gmail.com](mailto:joyce.m.y.tam@gmail.com)), Brad Wyble<sup>1</sup>; <sup>1</sup>Penn State University

### **43.453 The effects of saccades on visual working memory representations**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion*

Golnaz Forouzandehfar<sup>1</sup> ([gforouz@vols.utk.edu](mailto:gforouz@vols.utk.edu)), Garrett Hensley<sup>1</sup>, A. Caglar Tas<sup>1</sup>; <sup>1</sup>University of Tennessee,

Knoxville

### **43.454 When "Looking at Nothing" Imparts Something: Gaze Retro-cues Flexibly Direct Prioritization in Visual Working Memory**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion*

Yingchao Zhang<sup>1</sup> ([zhangych87@mail2.sysu.edu.cn](mailto:zhangych87@mail2.sysu.edu.cn)), Shujuan Ye<sup>1</sup>, Wei Chen<sup>1</sup>, Xiaowei Ding<sup>1</sup>; <sup>1</sup>Department of Psychology, Guangdong Provincial Key Laboratory of Social Cognitive Neuroscience and Mental Health, Sun Yat-sen University, Guangzhou, People's Republic of China

### **43.455 The Role of Report History in Attribute Amnesia**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion*

Niya Yan<sup>1</sup> ([yanniya@tamu.edu](mailto:yanniya@tamu.edu)), Brian Anderson; <sup>1</sup>Texas A&M University

### **43.456 Visual guessing relies on metacognitive reasoning**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion*

Caroline Myers<sup>1</sup> ([cmyers60@jhu.edu](mailto:cmyers60@jhu.edu)), Chaz Firestone<sup>1</sup>, Justin Halberda<sup>1</sup>; <sup>1</sup>Johns Hopkins University

### **43.457 Introducing ART: a new method of testing auditory memory with circular reproduction tasks**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion*

Daryl Fougny<sup>1</sup> ([darylfougny@gmail.com](mailto:darylfougny@gmail.com)), Aytac Karabay<sup>1</sup>, Rob Nijenkamp<sup>2</sup>, Anastasios Sarampalis<sup>3</sup>; <sup>1</sup>Department of Psychology, New York University Abu Dhabi, <sup>2</sup>Center for Information Technology, University of Groningen, <sup>3</sup>Department of Psychology, University of Groningen

### **43.458 What memories are formed by dynamic "visual routines"?**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion*

Kimberly W. Wong<sup>1</sup> ([kimberly.wong@yale.edu](mailto:kimberly.wong@yale.edu)), Brian Scholl<sup>1</sup>; <sup>1</sup>Yale University

## **Multisensory Processing: Audio-visual, visuo-vestibular**

### **43.459 The impact of gaze behavior on attentional disruptions to multisensory speech perception**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion*

Leslie Kwakye<sup>1</sup> ([lkwakye@oberlin.edu](mailto:lkwakye@oberlin.edu)), Arohi Dandawate<sup>1</sup>, Ankit Barana<sup>1</sup>, Sarah Liberatore<sup>1</sup>, Victoria Fisher<sup>1</sup>, Gabriel Hosein<sup>1</sup>, Andrea Orozco<sup>1</sup>; <sup>1</sup>Oberlin College

### **43.460 Comparing the consistency and determinants of visual and auditory memorability**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion*

Cambria Revsine<sup>1</sup> ([crevsine@uchicago.edu](mailto:crevsine@uchicago.edu)), Wilma A. Bainbridge<sup>1</sup>; <sup>1</sup>University of Chicago

### **43.461 Audiovisual multisensory Event Related Potentials using the McGurk effect as a stimulation paradigm**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion*

Jonathon Toft-Nielsen<sup>1,2,3</sup> ([jtoftnielsen@jorvec.com](mailto:jtoftnielsen@jorvec.com)), Rafael Delgado<sup>1,2,3</sup>, Özcan Özdamar<sup>3</sup>; <sup>1</sup>JÖRVEC Corp, <sup>2</sup>Intelligent Hearing Systems Corp, <sup>3</sup>University of Miami, Department of Biomedical Engineering

### **43.462 The Audiovisual Rabbit Illusion with Illusory Contours**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion*

Matilda Cederblad<sup>1</sup> ([amcederb@caltech.edu](mailto:amcederb@caltech.edu)), Armand R. Tanguay, Jr.<sup>1,2</sup>, Shinsuke Shimojo<sup>1</sup>, Noelle R. B. Stiles<sup>1,3</sup>; <sup>1</sup>California Institute of Technology, Division of Biology and Biological Engineering, <sup>2</sup>University of Southern California, Departments of Electrical Engineering, Chemical Engineering and Materials Science, Biomedical Engineering, Ophthalmology, and Physics and Astronomy; Neuroscience Graduate Program, <sup>3</sup>University of Southern California, Department of Ophthalmology

### **43.463 Making the Invisible Visible: Crossmodal Perception in Patients with Low Vision**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion*

Ailene Y. C. Chan<sup>1</sup> ([chanyca@caltech.edu](mailto:chanyca@caltech.edu)), Noelle R. B. Stiles<sup>1,2</sup>, Armand R. Tanguay, Jr.<sup>1,3</sup>, Shinsuke Shimojo<sup>1</sup>; <sup>1</sup>California Institute of Technology, Division of Biology and Biological Engineering, <sup>2</sup>University of Southern California, Department of Ophthalmology, <sup>3</sup>University of Southern California, Departments of Electrical Engineering, Chemical Engineering and Materials Science, Biomedical Engineering, Ophthalmology, and Physics and Astronomy; Neuroscience Graduate Program

### **43.464 Can Implicit Auditory Motion Affect Visual Motion?**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion*

Lara Krisst<sup>1</sup> ([lkrisst@caltech.edu](mailto:lkrisst@caltech.edu)), Daw-An Wu<sup>1</sup>, Shinsuke Shimojo<sup>1</sup>; <sup>1</sup>Caltech

### **43.465 Cross-modal feature based attention facilitates spatial transfer of perceptual learning in motion-domain figure-ground segregation**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion*

Catherine A. Fromm<sup>1</sup> ([caf8588@rit.edu](mailto:caf8588@rit.edu)), Krystal R. Huxlin<sup>2,3</sup>, Gabriel J. Diaz<sup>1,3</sup>; <sup>1</sup>Rochester Institute of Technology Center for Imaging Science, <sup>2</sup>Flaum Eye Institute, University of Rochester Medical Center, <sup>3</sup>University of Rochester Center for Visual Science

### **43.466 Multisensory Training Rehabilitates Hemianopia**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion*

Benjamin Rowland<sup>1</sup> ([browland@wakehealth.edu](mailto:browland@wakehealth.edu)), Barry Stein<sup>1</sup>; <sup>1</sup>Wake Forest School of Medicine

### **43.467 The role of motor and auditory predictive cues in modulating neural processing of predicted visual stimuli**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion*

Batel Buaron<sup>1</sup>, Roy Mukamel<sup>1</sup>; <sup>1</sup>Tel Aviv University

### **43.468 Restricting the Distribution of Visual Attention Reduces Cybersickness**

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion*

Sai Ho Yip<sup>1</sup>, Jeffrey Saunders<sup>1</sup>; <sup>1</sup>University of Hong Kong

### **43.469 Synchronicity of visual and vestibular signals modulates the causal inference in**

## heading direction estimation

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion*

Liana Nafisa Saftari<sup>1</sup>, Jongmin Moon<sup>1</sup>, Oh-Sang Kwon<sup>1</sup>; <sup>1</sup>Ulsan National Institute of Science and Technology

## 43.470 Cue Combination in Visual and Vestibular Perception of Subjective Vertical

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion*

Chela Willey<sup>1</sup> ([chela.willey@lmu.edu](mailto:chela.willey@lmu.edu)), Zili Liu<sup>2</sup>; <sup>1</sup>Loyola Marymount University, <sup>2</sup>University of California, Los Angeles

## 43.471 Rotational self-motion inhibits opposed visual motion

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion*

Kate Pickard<sup>1</sup> ([kp1c0319@uni.sydney.edu.au](mailto:kp1c0319@uni.sydney.edu.au)), Sujin Kim<sup>1</sup>, Robert Keys<sup>1</sup>, Frans Verstraten<sup>1</sup>, David Alais<sup>1</sup>; <sup>1</sup>University of Sydney

## 43.472 Causal inference modulates audiovisual temporal recalibration

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion*

Luhe Li<sup>1</sup> ([ll3981@nyu.edu](mailto:ll3981@nyu.edu)), Fangfang Hong<sup>1</sup>, Stephanie Badde<sup>2</sup>, Michael S. Landy<sup>1,3</sup>; <sup>1</sup>Department of Psychology, New York University, <sup>2</sup>Department of Psychology, Tufts University, <sup>3</sup>Center for Neural Science, New York University

## 43.473 Training of visual attentional tracking modulates fronto-parietal activation and cross-modal GABAergic suppression

*Monday, May 22, 2023, 8:30 am – 12:30 pm, Pavilion*

Sebastian Frank<sup>1</sup> ([cal.sebastian@googlemail.com](mailto:cal.sebastian@googlemail.com)), Markus Becker<sup>1</sup>, Ekaterina-Rita Hegmann<sup>1</sup>, Sonja Hartl<sup>1</sup>, Ayumi Sarah Wandl<sup>1</sup>, Mark Greenlee<sup>1</sup>; <sup>1</sup>University of Regensburg

# Tuesday Morning Posters in Banyan Breezeway

## Color, Light, and Materials: Neural mechanisms, models

### 53.301 Spatial and chromatic sensitivity of the primary visual cortex at the center-of-gaze

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Felix Bartsch<sup>1,2</sup> ([felixbartsch@gmail.com](mailto:felixbartsch@gmail.com)), Ramon Bartolo Orozco<sup>2</sup>, Jacob L Yates<sup>3</sup>, Cole Saborio<sup>1</sup>, Daniel A. Butts<sup>1</sup>, Bevil R. Conway<sup>2</sup>; <sup>1</sup>Program in Neuroscience and Cognitive Science, University of Maryland, <sup>2</sup>Laboratory of Sensorimotor Research, National Eye Institute, National Institutes of Health, <sup>3</sup>Herbert Wertheim School of Optometry and Vision Science, UC Berkeley,

### 53.303 Orientation and color tuning in macaque V4

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Dan-Qing Jiang<sup>1</sup>, Xing-Nan Zhao<sup>1</sup>, Sheng-Hui Zhang<sup>1</sup>, Shi-Ming Tang<sup>1,3,4</sup>, Cong Yu<sup>1,2,4</sup>; <sup>1</sup>PKU-Tsinghua Center for Life Sciences, Peking University, Beijing 100181, China, <sup>2</sup>School of Psychology and Cognitive Sciences, Peking University, Beijing 100181, China, <sup>3</sup>School of Life Sciences, Peking University, Beijing 100181, China, <sup>4</sup>IDG-



McGovern Institute for Brain Research, Peking University, Beijing 100181, China

### **53.304 Examining Hering's theory for color responses in human V1 and V4**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

William Narhi-Martinez<sup>1</sup> ([narhi-martinez.1@osu.edu](mailto:narhi-martinez.1@osu.edu)), Zitong Lu<sup>1</sup>, Angela M. Brown<sup>1</sup>, Julie D. Golomb<sup>1</sup>, Delwin T. Lindsey<sup>1</sup>; <sup>1</sup>The Ohio State University

### **53.305 Hue-dependence of contextual influences in color vision explained by a non-uniform population code**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Felix Schrader<sup>1</sup> ([felix.schrader@campus.lmu.de](mailto:felix.schrader@campus.lmu.de)), Thomas Wachtler<sup>1</sup>; <sup>1</sup>Faculty of Biology, Ludwig-Maximilians-Universität München, Planegg-Martinsried, Germany.

### **53.306 Predicting performance of diverse color vision genotypes of wild primates when foraging for food.**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Max Snodderly<sup>1</sup> ([dmsnodderly@gmail.com](mailto:dmsnodderly@gmail.com)), Delisa Ramos<sup>1</sup>, Andres Link<sup>2</sup>, Anthony Di Fiore<sup>1</sup>; <sup>1</sup>University of Texas at Austin, <sup>2</sup>Universidad de los Andes-Colombia

### **53.307 The Pattern electroretinogram as an indirect measure of central dopamine**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Michael Wenger<sup>1</sup> ([michael.j.wenger@ou.edu](mailto:michael.j.wenger@ou.edu)), Sarah Newbolds<sup>1</sup>, Abigail Hays<sup>1</sup>, Laili Boozary<sup>1</sup>, Amy Barnett<sup>1</sup>; <sup>1</sup>The University of Oklahoma

## **Perceptual Organization: Segmentation, grouping, similarity**

### **53.308 How object segmentation and perceptual grouping emerge in noisy variational autoencoders**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Ben Lonngqvist<sup>1</sup> ([ben.lonnqvist@epfl.ch](mailto:ben.lonnqvist@epfl.ch)), Zhengqing Wu<sup>1</sup>, Michael H. Herzog<sup>1</sup>; <sup>1</sup>EPFL (École Polytechnique Fédérale de Lausanne), Switzerland

### **53.309 Center-Surround Inhibition in Expectation**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Ling Huang<sup>1</sup> ([2018022906@m.scnu.edu.cn](mailto:2018022906@m.scnu.edu.cn)), xilin zhang<sup>2</sup>; <sup>1</sup>South China Normal University, <sup>2</sup>School of Psychology

### **53.310 Temporal limits of visual segmentation based on temporal asynchrony in luminance, color, motion direction, and their mixtures**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Yen-Ju Chen<sup>1</sup> ([ra51011daniel@gmail.com](mailto:ra51011daniel@gmail.com)), Shin'ya Nishida<sup>1,2</sup>; <sup>1</sup>Graduate School of Informatics, Kyoto University, Japan, <sup>2</sup>Human Information Science Laboratory, NTT Communication Science Laboratories, Nippon Telegraph and Telephone Corporation, Japan

### **53.311 A Bayesian efficient observer model to explain attractive and repulsive temporal context effects when perceiving multistable dot lattices**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Eline Van Geert<sup>1</sup> ([eline.vangeert@kuleuven.be](mailto:eline.vangeert@kuleuven.be)), Tina Ivančir<sup>1</sup>, Johan Wagemans<sup>1</sup>; <sup>1</sup>KU Leuven, Belgium

### **53.312 From dyads to crowds: Perceptual unity of group interactions.**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Jelena Ristic<sup>1</sup> ([jelena.ristic@mcgill.ca](mailto:jelena.ristic@mcgill.ca)), Clara Colombatto<sup>2</sup>, Luowei Yan<sup>1</sup>; <sup>1</sup>Department of Psychology McGill University, Montreal, Quebec, Canada, <sup>2</sup>Department of Experimental Psychology, University College London, London, United Kingdom

### **53.313 Integration of Scrambled Halves of Chinese Characters**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Sherry Zhang<sup>1</sup> ([sherryzh@usc.edu](mailto:sherryzh@usc.edu)), Jack Morrison<sup>2</sup>, Tailai Shen<sup>1</sup>, Ernest Greene<sup>1</sup>; <sup>1</sup>University of Southern California, <sup>2</sup>Neuropsychology Foundation

### **53.314 Similarity Binds (and Bends) the Perception of Objects**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Gorkem Er<sup>1</sup> ([gorkemerr@gmail.com](mailto:gorkemerr@gmail.com)), Tim Sweeny<sup>1</sup>; <sup>1</sup>University of Denver

### **53.315 The effect of stimulus similarity in the Eriksen Flanker Task**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Danai Papadaki<sup>1</sup> ([d.papadaki.19@abdn.ac.uk](mailto:d.papadaki.19@abdn.ac.uk)), Ramakrishna Chakravarthi<sup>1</sup>, Søren K. Andersen<sup>1,2</sup>; <sup>1</sup>School of Psychology, University of Aberdeen, UK, <sup>2</sup>Department of Psychology, University of Southern Denmark, Denmark

## **Face Perception: Models**

### **53.317 Erring on the side of caution: The influence of base rates, payoffs, and discriminability on face identification performance.**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Kristen A. Baker<sup>1</sup>, Vincent J. Stabile<sup>2</sup>, Catherine J. Mondloch<sup>1</sup>; <sup>1</sup>Brock University, <sup>2</sup>Oakland University

### **53.318 Extrafoveal faces modulate the dynamics of scene viewing**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Petra Borovska<sup>1</sup> ([petra.borovska@psychol.uni-giessen.de](mailto:petra.borovska@psychol.uni-giessen.de)), Benjamin de Haas<sup>1</sup>; <sup>1</sup>Justus-Liebig-University Giessen

### **53.319 Intensive fMRI scanning and computational models can provide insight into the neural basis of developmental prosopagnosia**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Subha Nawer Pushpita<sup>3</sup> ([snpushpi@mit.edu](mailto:snpushpi@mit.edu)), Elizabeth Mieczkowski<sup>1</sup>, Bradley Duchaine<sup>4</sup>, N. Apurva Ratan Murty<sup>1,2,5</sup>; <sup>1</sup>Department of Brain and Cognitive Sciences, Massachusetts Institute of Technology, <sup>2</sup>Center for Brains, Minds and Machines, Massachusetts Institute of Technology, <sup>3</sup>Department of Electrical Engineering and Computer Science, Massachusetts Institute of Technology, <sup>4</sup>Department of Psychological and Brain Sciences, Dartmouth College, <sup>5</sup>McGovern Institute for Brain Research, Massachusetts Institute of Technology

### **53.320 Prediction of preference judgments of face images using facial expressions and**

## EEG signals

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Satoshi Shioiri<sup>1</sup> ([shioiri@riec.tohoku.ac.jp](mailto:shioiri@riec.tohoku.ac.jp)), Hikaru Nagata<sup>2</sup>, Yoshiyuki Sato<sup>3</sup>, Yasuhiro Hatori<sup>4</sup>; <sup>1</sup>Tohoku University

## 53.321 Comparison of regression techniques to predict attractiveness from facial colour cues

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Yan Lu<sup>1</sup> ([sdyl@leeds.ac.uk](mailto:sdyl@leeds.ac.uk)), Kaida Xiao<sup>1,2</sup>, Jie Yang<sup>3</sup>, Michael Pointer<sup>1</sup>, Changjun Li<sup>2</sup>, Sophie Wuerger<sup>4</sup>; <sup>1</sup>Leeds Institute of Textile and Colour, University of Leeds, <sup>2</sup>University of Science and Technology Liaoning, <sup>3</sup>Beijing Institute of Graphic Communication, <sup>4</sup>University of Liverpool

## 53.322 Reconstructing facial motion across views using a multi-view face space.

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Ryan Elson<sup>1</sup> ([ryan.elson@nottingham.ac.uk](mailto:ryan.elson@nottingham.ac.uk)), Denis Schluppeck<sup>1</sup>, Alan Johnston<sup>1</sup>; <sup>1</sup>University of Nottingham, UK

## 53.323 The Latent Decision Variable Underlying Confidence in Lineup Rejections

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Anne Yilmaz<sup>1</sup> ([a1yilmaz@ucsd.edu](mailto:a1yilmaz@ucsd.edu)), John Wixted<sup>1</sup>; <sup>1</sup>University of California, San Diego

## Face Perception: Neural mechanisms

### 53.324 The causal link between neural activity in inferotemporal cortex and free viewing eye movements

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Reza Azadi<sup>1</sup>, Emily Lopez<sup>1</sup>, Jessica Taubert<sup>2,3</sup>, Amanda Patterson<sup>2</sup>, Arash Afraz<sup>1</sup>; <sup>1</sup>Laboratory of Neuropsychology, National Institute of Mental Health, Bethesda, MD 20892, USA, <sup>2</sup>Laboratory of Brain and Cognition, National Institute of Mental Health, Bethesda, MD 20892, USA, <sup>3</sup>School of Psychology, The University of Queensland, Brisbane, QLD 4072, Australia

### 53.325 Is the processing of facial expression and head orientation dissociated in the human brain?

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Kyla Brannigan<sup>1</sup>, Rohini Kumar<sup>1</sup>, Hannah Wild<sup>1</sup>, Shivani Goyal<sup>1</sup>, Chris Baker<sup>1</sup>, Jessica Taubert<sup>1,2</sup>, Shruti Japee<sup>1</sup>; <sup>1</sup>Laboratory of Brain and Cognition, NIMH, NIH, <sup>2</sup>University of Queensland

### 53.326 An electrophysiological investigation of facial race and identity decoding

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Moaz Shoura<sup>1</sup> ([moaz.shoura@mail.utoronto.ca](mailto:moaz.shoura@mail.utoronto.ca)), Marco A. Sama<sup>1</sup>, Arijit De<sup>1</sup>, Sophie Zhou<sup>1</sup>, Adrian Nestor<sup>1</sup>; <sup>1</sup>University of Toronto Scarborough

### 53.327 Do visual mental imagery and exteroceptive perception rely on the same mechanisms?

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Catherine Landry<sup>1</sup>, Jasper JF van den Bosch<sup>2</sup>, Ian Charest<sup>1,2</sup>, Frédéric Gosselin<sup>1</sup>, Vincent Taschereau-Dumouchel<sup>3,4</sup>; <sup>1</sup>Cerebrum, Département de psychologie, Université de Montréal, <sup>2</sup>Centre for Human Brain Health, School of Psychology, University of Birmingham, <sup>3</sup>Département de psychiatrie et d'addictologie, Université de Montréal, <sup>4</sup>Centre de Recherche de l'Institut Universitaire en Santé Mentale de Montréal, Montréal

### **53.328 Early neural dehumanization of other race faces**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Justin Duncan<sup>1</sup> ([justin.duncan@uqo.ca](mailto:justin.duncan@uqo.ca)), Marie-Pier Plouffe-Demers<sup>1,2</sup>, Émilie St-Pierre<sup>1</sup>, Caroline Blais<sup>1</sup>, Daniel Fiset<sup>1</sup>; <sup>1</sup>Université du Québec en Outaouais, <sup>2</sup>Université du Québec à Montréal

### **53.329 Interaction vs observation mode in the macaque visual cortex.**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Jessica Taubert<sup>1,2</sup> ([jesstaubert@gmail.com](mailto:jesstaubert@gmail.com)), Shruti Japee<sup>2</sup>, Amanda Patterson<sup>2</sup>, Eliza Bliss-Moreau<sup>3</sup>; <sup>1</sup>The School of Psychology, The University of Queensland, QLD Australia, <sup>2</sup>The Laboratory of Brain and Cognition, The National Institute of Mental Health, MD United States., <sup>3</sup>Department of Psychology, The University of California, Davis, CA United States.

### **53.330 Low beta oscillations encode serial bias in face-gender discrimination**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Giacomo Ranieri<sup>1</sup>, David C Burr<sup>1</sup>, Maria Concetta Morrone<sup>2</sup>; <sup>1</sup>University of Florence, <sup>2</sup>University of Pisa

### **53.331 Temporal dynamics of facial identity and expression processing from magnetoencephalography**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Rohini Kumar<sup>1</sup>, Kyla Brannigan<sup>1</sup>, Lina Teichmann<sup>1</sup>, Chris Baker<sup>1</sup>, Shruti Japee<sup>1</sup>; <sup>1</sup>Laboratory of Brain and Cognition, NIMH, NIH

### **53.332 N250 amplitude is driven by the eyes in mid-to-high spatial frequencies**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Vicki Ledrou-Paquet<sup>1</sup> ([ledv07@uqo.ca](mailto:ledv07@uqo.ca)), Isabelle Charbonneau<sup>1</sup>, Justin Duncan<sup>1</sup>, Caroline Blais<sup>1</sup>, Daniel Fiset<sup>1</sup>; <sup>1</sup>Département de Psychoéducation et de Psychologie, Université du Québec en Outaouais

### **53.333 Parametric study of N170 sensitivity to diagnostic facial information during face identification**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Pierre-Louis Audette<sup>1</sup>, Justin Duncan<sup>1</sup>, Caroline Blais<sup>1</sup>, Daniel Fiset<sup>1</sup>; <sup>1</sup>Université du Québec en Outaouais

### **53.334 Unconscious perception of race shapes conscious race categorization in the brain**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Peter de Lissa<sup>1</sup> ([peter.delissa@unifr.ch](mailto:peter.delissa@unifr.ch)), Pauline Schaller<sup>1</sup>, Viola Benedetti<sup>2</sup>, Roberto Caldara<sup>1</sup>; <sup>1</sup>University of Fribourg, <sup>2</sup>University of Florence

### **53.335 Establishing functional homology across species using a common set of natural**

## images

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Kasper Vinken<sup>1</sup>, Saloni Sharma<sup>1</sup>, Margaret Livingstone<sup>1</sup>; <sup>1</sup>Harvard Medical School

### **53.336 3D Faces Evoke Stronger fMRI Activation than 2D Faces**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Eva Deligiannis<sup>1,2</sup> ([edeligia@uwo.ca](mailto:edeligia@uwo.ca)), Marisa Donnelly<sup>2</sup>, Carol Coricelli<sup>2,3</sup>, Karsten Babin<sup>2</sup>, Kevin Stubbs<sup>2,4</sup>, Chelsea Ekstrand<sup>5</sup>, Laurie M. Wilcox<sup>6</sup>, Jody C. Culham<sup>1,2</sup>; <sup>1</sup>Neuroscience Program, Western University, Canada, <sup>2</sup>Brain and Mind at Western, Western University, Canada, <sup>3</sup>German Institute of Human Nutrition, Potsdam-Rehbrücke, Germany, <sup>4</sup>BrainsCAN, Western University, Canada, <sup>5</sup>Canadian Centre for Behavioural Neuroscience, University of Lethbridge, Canada, <sup>6</sup>Centre for Vision Research, York University

### **53.337 Revealing interpretable object dimensions from a high-throughput model of the fusiform face area**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Oliver Contier<sup>1,2</sup>, Shu Fujimori<sup>1,3</sup>, Katja Seeliger<sup>1</sup>, N Apurva Ratan Murty<sup>4,5</sup>, Martin Hebart<sup>1,6</sup>; <sup>1</sup>Vision and Computational Cognition Group, Max Planck Institute for Human Cognitive and Brain Sciences, <sup>2</sup>Max Planck School of Cognition, Max Planck Institute for Human Cognitive and Brain Sciences, <sup>3</sup>Department of Mechanical and Intelligent Systems Engineering, Graduate School of Informatics and Engineering, The University of Electro-Communications, <sup>4</sup>McGovern Institute for Brain Research, Massachusetts Institute of Technology, <sup>5</sup>Department of Brain and Cognitive Science, Massachusetts Institute of Technology, <sup>6</sup>Department of Medicine, Justus Liebig University

### **53.338 Bidirectional and parallel relationships in macaque face circuit revealed by fMRI and causal pharmacological inactivation**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Marlene Behrmann<sup>1</sup> ([mbehrmann@pitt.edu](mailto:mbehrmann@pitt.edu)), Galia Avidan<sup>2</sup>, Janita N. Turchi<sup>3</sup>, Fadila Hadj-Bouziane<sup>4</sup>, Ning Liu<sup>5</sup>; <sup>1</sup>Department of Ophthalmology, University of Pittsburgh, and Carnegie Mellon University, Pittsburgh, Pennsylvania, 15213 USA, <sup>2</sup>Department of Psychology, Ben-Gurion University of the Negev, Beer-Sheva 8410501, Israel, <sup>3</sup>Laboratory of Neuropsychology, NIMH, NIH, Bethesda, Maryland, 20892, USA, <sup>4</sup>INSERM, U1028, CNRS UMR5292, Lyon Neuroscience Research Center, ImpAct Team, Lyon, F-69000, France, <sup>5</sup>State Key Laboratory of Brain and Cognitive Science, Institute of Biophysics, Chinese Academy of Sciences, Beijing, 100101, China

## **Scene Perception: Categorization, memory, cognition**

### **53.339 Understanding Novel Real World Scenes: Gist, Elaboration, and Uniqueness**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Khoa Nguyen<sup>1</sup> ([khoa2@usf.edu](mailto:khoa2@usf.edu)), Jong Han Lee<sup>1</sup>, Reilly Orman<sup>1</sup>, Lewis Evans<sup>1</sup>, Eve Felicien Griffith<sup>1</sup>, Thomas Sanocki<sup>1</sup>; <sup>1</sup>University of South Florida

### **53.340 The role of object and spatial layout in scene integration**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Girim Yoon<sup>1</sup> ([yoongr@yonsei.ac.kr](mailto:yoongr@yonsei.ac.kr)), Soojin Park<sup>1</sup>; <sup>1</sup>Department of Psychology, Yonsei University

### **53.341 Mainly the actions: Functional knowledge has a primary role in understanding real-world scenes portrayed by either fine or coarse visual information**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Krystian Ciesielski<sup>1</sup>, Andrew Webb<sup>2</sup>, Sara Spotorno<sup>3</sup>; <sup>1</sup>School of Psychology, Keele University, UK, <sup>2</sup>Department of Computational Neuroscience, Max Planck Institute for Biological Cybernetics, Tübingen, Germany, <sup>3</sup>Psychology Department, Durham University, UK

### **53.342 Complexity & Memorability have a Nonlinear Relationship when Remembering Scenes**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Cameron Kyle-Davidson<sup>1</sup> ([ckd505@york.ac.uk](mailto:ckd505@york.ac.uk)), Karla K. Evans<sup>1</sup>; <sup>1</sup>University of York

### **53.343 Memorable Scenes Attract Attention in Visual Search**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Yoshiyuki Ueda<sup>1</sup> ([ueda.yoshiyuki.3e@kyoto-u.ac.jp](mailto:ueda.yoshiyuki.3e@kyoto-u.ac.jp)), Qi Li<sup>2</sup>, Yuichiro Kikuno<sup>3</sup>; <sup>1</sup>Kyoto University, <sup>2</sup>Okayama University, <sup>3</sup>Kyoto Notre Dame University

### **53.344 Musically induced microvalences in high-level visual processing of everyday scenes**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Elizabeth Galbo<sup>1</sup>, Nathan Lincoln-DeCusatis<sup>1</sup>, Elissa M. Aminoff<sup>1</sup>; <sup>1</sup>Fordham University

## **Scene Perception: Neural mechanisms**

### **53.345 Evidence that noise in human visual cortex encodes naturalistic visual representations**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Thomas Naselaris<sup>1</sup> ([nase0005@umn.edu](mailto:nase0005@umn.edu)), Ghislain St-Yves<sup>1</sup>, Kendrick Kay<sup>1</sup>; <sup>1</sup>University of Minnesota

### **53.346 An encoding model in shared functional space to reconstruct representations in multiple datasets**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Laurent Caplette<sup>1</sup> ([laurent.caplette@yale.edu](mailto:laurent.caplette@yale.edu)), Nicholas B. Turk-Browne<sup>1</sup>; <sup>1</sup>Yale University

### **53.347 Orientation-dependent Modulation of Primary Visual Cortex to Near Surrounds Differs from Perceived Suppression**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Victor Pokorný<sup>1</sup> ([vpokorny123@gmail.com](mailto:vpokorny123@gmail.com)), Scott Sponheim<sup>1,2</sup>, Cheryl Olman<sup>1</sup>; <sup>1</sup>University of Minnesota, <sup>2</sup>Minneapolis VA Medical Center

### **53.348 The Spatiotemporal Dynamics of Goal-driven Efficient-coding Revealed Through Brain-supervised Sparse Code Mapping**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Bruce Hansen<sup>1</sup> ([bchansen@colgate.edu](mailto:bchansen@colgate.edu)), Michelle Greene<sup>2</sup>, David Field<sup>3</sup>; <sup>1</sup>Colgate University, <sup>2</sup>Bates College,

<sup>3</sup>Cornell University

### **53.349 Combined representation of mid-level visual features in the scene-selective cortex**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Jisu Kang<sup>1</sup>, Soojin Park<sup>1</sup>; <sup>1</sup>Department of Psychology, Yonsei University

### **53.350 Representation of event boundaries in the first-person navigation**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Byunghoon Choi<sup>1</sup>, Donald Shi Pui Li<sup>2</sup>, Soojin Park<sup>1</sup>; <sup>1</sup>Yonsei University, <sup>2</sup>Johns Hopkins University

### **53.351 Scene- and object-based tasks performed on the same complex stimuli activate different regions in parietal and lateral occipital cortex.**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Mark D. Lescroart<sup>1</sup>, Hunter Howe<sup>1</sup>; <sup>1</sup>University of Nevada, Reno

### **53.352 What does it mean to be a scene: evidence from full-field fMRI**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Jeongho Park<sup>1</sup> ([jpark3@g.harvard.edu](mailto:jpark3@g.harvard.edu)), Talia Konkle<sup>1</sup>; <sup>1</sup>Harvard University

### **53.353 Reconstructing mental images using Bubbles and electroencephalography**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Audrey Lamy-Proulx<sup>1</sup>, Jasper van den Bosch<sup>2</sup>, Catherine Landry<sup>1</sup>, Peter Brotherwood<sup>1</sup>, Vincent Taschereau-Dumouchel<sup>3,4</sup>, Frédéric Gosselin<sup>1</sup>, Ian Charest<sup>1,2</sup>; <sup>1</sup>Cerebrum, Université de Montréal, <sup>2</sup>Centre for Human Brain Health, University of Birmingham, <sup>3</sup>Département de psychiatrie et d'addictologie, Université de Montréal, <sup>4</sup>Centre de Recherche de l'Institut Universitaire en Santé Mentale de Montréal

### **53.354 Dissociable mechanisms for integrating views into places in scene-selective cortex**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Linfeng Tony Han<sup>1</sup> ([hanlf@sas.upenn.edu](mailto:hanlf@sas.upenn.edu)), Russell A. Epstein<sup>1</sup>; <sup>1</sup>University of Pennsylvania

### **53.355 Revealing the locus and content of behaviorally relevant information about real-world scenes in human visual cortex**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Johannes Singer<sup>1</sup> ([johannes.singer@arcor.de](mailto:johannes.singer@arcor.de)), Agnessa Karapetian<sup>1,2,3</sup>, Martin Hebart<sup>4,5</sup>, Radoslaw Cichy<sup>1,2,3</sup>; <sup>1</sup>Department of Education and Psychology, Freie Universität Berlin, Germany, <sup>2</sup>Charité – Universitätsmedizin Berlin, Einstein Center for Neurosciences Berlin, Berlin, Germany, <sup>3</sup>Bernstein Centre for Computational Neuroscience Berlin, Berlin, Germany, <sup>4</sup>Vision and Computational Cognition Group, Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany, <sup>5</sup>Department of Medicine, Justus-Liebig-Universität Gießen, Germany

### **53.356 Scene representations underlying categorization behaviour emerge 100 to 200 ms after stimulus onset**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Agnessa Karapetian<sup>1,2,3</sup> ([agnessakarapetian@gmail.com](mailto:agnessakarapetian@gmail.com)), Antoniya Boyanova<sup>1</sup>, Muthukumar Pandaram<sup>3</sup>, Klaus Obermayer<sup>2,3,4,5</sup>, Tim C. Kietzmann<sup>6</sup>, Radoslaw M. Cichy<sup>1,2,3,5</sup>; <sup>1</sup>Freie Universitaet Berlin, Germany, <sup>2</sup>Einstein Center for Neurosciences Berlin, Germany, <sup>3</sup>Bernstein Centre for Computational Neuroscience Berlin, Germany, <sup>4</sup>Technische Universitaet Berlin, Germany, <sup>5</sup>Berlin School of Mind and Brain, Germany, <sup>6</sup>Universitaet Osnabrueck, Germany

### **53.357 Is Attention Necessary for the Representational Advantage of Good Exemplars over Bad Exemplars?**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Zhenan Shao<sup>1,2</sup> ([zhenans2@illinois.edu](mailto:zhenans2@illinois.edu)), Diane M. Beck<sup>1,2</sup>; <sup>1</sup>Department of Psychology, University of Illinois Urbana-Champaign, <sup>2</sup>Beckman Institute, University of Illinois Urbana-Champaign

### **53.358 Exploring Similarities in Human and Macaque Representational Structure using fMRI**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Kurt Braunlich<sup>1</sup> ([kurt.braunlich@nih.gov](mailto:kurt.braunlich@nih.gov)), Marianne Duyck<sup>1</sup>, Kyle Behel<sup>1</sup>, Stuart Duffield<sup>1</sup>, Bevil Conway<sup>1</sup>, Chris Baker<sup>1</sup>; <sup>1</sup>NIH

## **Visual Search: Scenes and other natural environments**

### **53.359 Investigating the effects of a virtual reality vs. screen-based testing setup on incidental memory after visual search through scenes**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Julia Beitner<sup>1</sup> ([beitner@psych.uni-frankfurt.de](mailto:beitner@psych.uni-frankfurt.de)), Jason Helbing<sup>1</sup>, Erwan J. David<sup>1</sup>, Melissa L.-H. Vo<sup>1</sup>; <sup>1</sup>Scene Grammar Lab, Goethe University Frankfurt

### **53.360 Feature integration in visual search for real-world scenes**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Gaeun Son<sup>1</sup> ([gaeun.son@mail.utoronto.ca](mailto:gaeun.son@mail.utoronto.ca)), Michael L. Mack, Dirk B. Walther; <sup>1</sup>University of Toronto

### **53.361 Searching near and far: The attentional template incorporates viewing distance**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Surya Gayet<sup>1,2</sup> ([surya.gayet@gmail.com](mailto:surya.gayet@gmail.com)), Elisa Battistoni<sup>3</sup>, Sushrut Thorat<sup>1,4</sup>, Marius Peelen<sup>1</sup>; <sup>1</sup>Donders Institute for Brain, Cognition and Behaviour, Radboud University, Nijmegen, The Netherlands, <sup>2</sup>Helmholtz Institute, Experimental Psychology, Utrecht University, Utrecht, The Netherlands, <sup>3</sup>Center for Mind/Brain Sciences, University of Trento, Rovereto, Italy, <sup>4</sup>Institute of Cognitive Science, Osnabrück University, Osnabrück, Germany

### **53.362 Active visual search in a 3D real world environment**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Tiffany Wu<sup>1</sup> ([tiffwu1027@gmail.com](mailto:tiffwu1027@gmail.com)), John K. Tsotsos<sup>1</sup>; <sup>1</sup>York University, Toronto, Canada

### **53.363 Probing Satisfaction of Search Using a Laboratory Analog of Medical Image Analysis**



*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Andrew Hollingworth<sup>1</sup> ([andrew-hollingworth@uiowa.edu](mailto:andrew-hollingworth@uiowa.edu)), Zexuan Niu<sup>1</sup>, Cathleen M. Moore<sup>1</sup>, Claudia Mello-Thoms<sup>2</sup>; <sup>1</sup>The University of Iowa, Department of Psychological and Brain Sciences, <sup>2</sup>The University of Iowa, Department of Radiology

### **53.364 Visual Selection Interacts With Action Planning in Natural Foraging Tasks**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Danilo A. Kuhn<sup>1</sup> ([danilo.kuhn@uni-marburg.de](mailto:danilo.kuhn@uni-marburg.de)), Jan Tünnermann<sup>1</sup>, Anna Schubö<sup>1</sup>; <sup>1</sup>Philipps-University Marburg

### **53.365 The semantic distance between a linguistic prime and a natural scene target predicts reaction times in a visual search experiment**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Katerina Marie Simkova<sup>1</sup> ([kms863@student.bham.ac.uk](mailto:kms863@student.bham.ac.uk)), Jasper JF van den Bosch<sup>1</sup>, Damiano Grignolio<sup>1</sup>, Clayton Hickey<sup>1</sup>, Ian Charest<sup>2</sup>; <sup>1</sup>CHBH, School of Psychology, University of Birmingham, <sup>2</sup>cerebrUM, Département de Psychologie, Université de Montréal

### **53.366 Comparing Neural Networks and Human Subjects in Assessing Trademark Similarities**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Shinsuke Shimojo<sup>1</sup> ([sshimojo@caltech.edu](mailto:sshimojo@caltech.edu)), Filip-Mihai Toma<sup>1</sup>, Masaiko Noguchi<sup>1</sup>, Elijah Cole<sup>1</sup>, Markus Marks<sup>1</sup>, Mohammad Shehata<sup>1,2</sup>, Daw-An Wu<sup>1</sup>; <sup>1</sup>California Institute of Technology, <sup>2</sup>Toyohashi University of Technology

### **53.367 Rare vs. Frequent Target Search in 2D and Segmented-3D Searches**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Stephen Adamo<sup>1</sup>; <sup>1</sup>University of Central Florida

### **53.368 Using computer-simulated lung nodules to evaluate the effects of prevalence rate on perceptual learning of lung nodule detection in initially naïve observers**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Frank Tong<sup>1,2</sup> ([frank.tong@vanderbilt.edu](mailto:frank.tong@vanderbilt.edu)), Hui-Yuan Miao<sup>1</sup>, Hojin Jang<sup>1,3</sup>, Edwin Donnelly<sup>4</sup>; <sup>1</sup>Psychology Department, Vanderbilt University, <sup>2</sup>Vanderbilt Vision Research Center, Vanderbilt University, <sup>3</sup>Department of Brain and Cognitive Sciences, Massachusetts Institute of Technology, <sup>4</sup>Department of Radiology, Ohio State Wexner Medical Center

### **53.369 Just look away: Could attention allocation to scene grammar violations during unrelated object searches be modulated by individual differences in language experience?**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Naomi Vingron<sup>1</sup> ([naomi.vingron@mail.mcgill.ca](mailto:naomi.vingron@mail.mcgill.ca)), Melissa Vo<sup>1</sup>; <sup>1</sup>Scene Grammar Lab, Department of Psychology, Goethe University, Frankfurt am Main, Germany

### **53.370 Predictions benefit performance in dynamic search across the adult lifespan**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Nir Shalev<sup>1</sup> ([nir.shalev@wolfson.ox.ac.uk](mailto:nir.shalev@wolfson.ox.ac.uk)), Sage Boettcher<sup>2</sup>, Anna Christina Nobre<sup>3</sup>; <sup>1</sup>University of Oxford

# Tuesday Morning Posters in Pavilion

## Development: Perception and cognition

### 53.401 Development of navigational affordance perception in infancy

Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion

Frederik Kamps<sup>1</sup> ([fkamps@mit.edu](mailto:fkamps@mit.edu)), Emily Chen<sup>2</sup>, Adele Mah<sup>3</sup>, Stephanie Washburn<sup>4</sup>, Nancy Kanwisher<sup>5</sup>, Rebecca Saxe<sup>6</sup>; <sup>1</sup>Massachusetts Institute of Technology

### 53.402 A novel eye-tracking task to assess mental rotation from infancy to early childhood

Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion

Aaron Beckner<sup>1</sup> ([agb222@cornell.edu](mailto:agb222@cornell.edu)), Mary Simpson<sup>1</sup>, David Tompkins<sup>1</sup>, Vanessa LoBue<sup>2</sup>, Lisa Oakes<sup>3</sup>, Marianella Casasola<sup>1</sup>; <sup>1</sup>Cornell University, <sup>2</sup>Rutgers University, <sup>3</sup>UC Davis

### 53.403 Investigating the neural analog-to-symbolic shift in 5- to 7-year-old childrens' numerical cognition

Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion

Caroline M. Kaicher<sup>1</sup> ([ckaicher@andrew.cmu.edu](mailto:ckaicher@andrew.cmu.edu)), Lauren S. Aulet<sup>1</sup>, Jessica F. Cantlon<sup>1</sup>; <sup>1</sup>Carnegie Mellon University

### 53.404 Neurocognitive mechanisms of attentional control development

Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion

Aaron Buss<sup>1</sup> ([aarontbuss@gmail.com](mailto:aarontbuss@gmail.com)), Alexis McCraw<sup>1</sup>, Kara Lowery<sup>1</sup>, Hollis Heim<sup>1</sup>, Rachel Eddings<sup>1</sup>, Jacqueline Sullivan<sup>1</sup>; <sup>1</sup>University of Tennessee, Knoxville

### 53.405 Assessing Visual Short-Term Memory in 5- to 12-Month-Old Infants Using an Eye-Tracking Change-Localization Task at Set Sizes Three and Four

Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion

Van T. Pham<sup>1</sup> ([vttpham@ucdavis.edu](mailto:vttpham@ucdavis.edu)), Michaela C. DeBolt<sup>1</sup>, Aaron G. Beckner<sup>2</sup>, Lisa M. Oakes<sup>1</sup>; <sup>1</sup>University of California, Davis, <sup>2</sup>Cornell University

### 53.406 Associations Among Attention, Child Temperament, and Resting State Connectivity

Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion

Jacqueline Sullivan<sup>1</sup>, Kara Lowery<sup>1</sup>, Rachel Eddings<sup>1</sup>, Aaron Buss<sup>1</sup>; <sup>1</sup>University of Tennessee, Knoxville

### 53.407 Differential development of object and location processing is a critical factor to a child's passing or failing explicit false-belief tasks

Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion

Rebecca J. Rennert<sup>1</sup> ([rebecca.rennert@emory.edu](mailto:rebecca.rennert@emory.edu)), Virginia J. Chambers<sup>1</sup>, Daniel D. Dilks<sup>1</sup>; <sup>1</sup>Emory University

### 53.408 Young Children's Cost-dependent Tradeoff Between Looking and Remembering

Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion

Yibiao Liang<sup>1</sup> ([yibiao.liang001@umb.edu](mailto:yibiao.liang001@umb.edu)), Zsuzsa Kaldy<sup>1</sup>, Erik Blaser<sup>1</sup>; <sup>1</sup>University of Massachusetts Boston

### **53.409 Social Attribution Behavior in Newly Sighted Children.**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion*

Dhun Verma<sup>1</sup>, Mrinalini Yadav<sup>1</sup>, Priti Gupta<sup>4</sup>, Chetan Ralekar<sup>3</sup>, Shlomit Ben-Ami<sup>6</sup>, Sharon Gilad-Gutnick<sup>3</sup>, Seth Riskin<sup>3</sup>, Flip Phillips<sup>5</sup>, Kimiya Jazayeri<sup>7</sup>, Suma Ganesh<sup>2</sup>, Pawan Sinha<sup>3</sup>; <sup>1</sup>Project Prakash, Dr Shroff's Charity Eye Hospital, New Delhi, <sup>2</sup>Department of Paediatric Ophthalmology, Dr Shroff's Charity Eye Hospital, New Delhi, <sup>3</sup>Department of Brain and Cognitive Sciences, Massachusetts Institute of Technology, USA, <sup>4</sup>Amarnath and Shashi Khosla School of Information Technology, IIT, Delhi, <sup>5</sup>MAGIC Center, Rochester Institute of Technology, Rochester, NY, USA, <sup>6</sup>Sagol School of Neuroscience, School of Psychological Sciences, Tel-Aviv University, Tel-Aviv, Israel, <sup>7</sup>Brookline High School, Brookline, MA, USA

### **53.410 A quantitative method for localizing RMS contrast in egocentric images**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion*

Evelina E Dineva<sup>1</sup>, Eric S Seemiller<sup>2</sup>, T Rowan Candy<sup>1</sup>, Linda B Smith<sup>1</sup>; <sup>1</sup>Indiana University, <sup>2</sup>Air Force Research Laboratory

### **53.411 Photophobia and Poor Night Vision are the Most Disruptive Symptoms of Visual Snow Syndrome**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion*

Carter B. Mulder<sup>1</sup> ([mulde109@umn.edu](mailto:mulde109@umn.edu)), Samantha A. Montoya<sup>2</sup>, Michael S. Lee<sup>3</sup>, Stephen A. Engel<sup>4</sup>, Michael-Paul Schallmo<sup>1</sup>; <sup>1</sup>University of Minnesota, Department of Psychiatry and Behavioral Sciences, <sup>2</sup>University of Minnesota, Graduate Program in Neuroscience, <sup>3</sup>University of Minnesota, Department of Ophthalmology and Visual Neurosciences, <sup>4</sup>University of Minnesota, Department of Psychology

## **Spatial Vision: Models and image statistics**

### **53.412 Covariance between similarly tuned populations in human visual cortex is model-dependent**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion*

Josh Wilson<sup>1</sup> ([joshmw@stanford.edu](mailto:joshmw@stanford.edu)), Justin Gardner<sup>1</sup>; <sup>1</sup>Stanford University

### **53.413 Evaluating Pyramid-Based Image Statistics Using Contrastive Learning**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion*

Vasha DuTell<sup>1,2</sup> ([vashadutell@gmail.com](mailto:vashadutell@gmail.com)), William Freeman<sup>1</sup>, Ruth Rosenholtz<sup>1,2</sup>; <sup>1</sup>MIT CSAIL, <sup>2</sup>MIT Brain and Cognitive Sciences

### **53.414 Statistical characterization of medical images of bone**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion*

Elena Ajayi<sup>1,2</sup> ([elenaajayi@outlook.com](mailto:elenaajayi@outlook.com)), Jonathan Victor<sup>2</sup>; <sup>1</sup>St. John's University, <sup>2</sup>Weill Cornell Medical College

### **53.415 When do contrast sensitivity impairments (or enhancements) depend on spatial frequency? Two ways to avoid spurious interactions.**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion*

Howard Bi<sup>1</sup> ([howardbi97@gmail.com](mailto:howardbi97@gmail.com)), Yonatan Abrham<sup>1</sup>, Pamela Butler<sup>2,3</sup>, Boyang Hu<sup>1</sup>, Brian Keane<sup>1</sup>;

<sup>1</sup>University of Rochester, <sup>2</sup>Nathan S. Kline Institute for Psychiatric Research, <sup>3</sup>New York University School of Medicine

### **53.416 A image gradient approach to perceptual metric space**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion*

Alan Johnston<sup>1</sup>; <sup>1</sup>University of Nottingham

### **53.417 Elucidating the relationship between spatial summation and center-surround antagonism**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion*

Christopher Wu<sup>1</sup>, Daniel Coates<sup>1</sup>; <sup>1</sup>University of Houston, College of Optometry

### **53.418 Cortically motivated recurrence enables visual task extrapolation**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion*

Vijay Veerabadrán<sup>1</sup> ([vveeraba@ucsd.edu](mailto:vveeraba@ucsd.edu)), Yuan Tang<sup>1</sup>, Ritik Raina<sup>1</sup>, Virginia de Sa<sup>1</sup>; <sup>1</sup>University of California - San Diego

### **53.419 Is edge sensitivity more than contrast sensitivity?**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion*

Lynn Schmittwilken<sup>1</sup> ([l.schmittwilken@tu-berlin.de](mailto:l.schmittwilken@tu-berlin.de)), Felix A. Wichmann<sup>2</sup>, Marianne Maertens<sup>1</sup>; <sup>1</sup>Technical University Berlin, <sup>2</sup>University of Tuebingen

### **53.420 Non-parametric Hierarchical Bayesian Modeling of the Contrast Sensitivity Function**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion*

Yukai Zhao<sup>1</sup> ([zhaoyukai@nyu.edu](mailto:zhaoyukai@nyu.edu)), Luis Andres Lesmes<sup>2</sup>, Michael Dorr<sup>2</sup>, Zhong-Lin Lu<sup>1,3</sup>; <sup>1</sup>New York University, <sup>2</sup>Adaptive Sensory Technology Inc., <sup>3</sup>NYU Shanghai

### **53.421 Foveated metamers of the early visual system**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion*

William F. Broderick<sup>1</sup> ([billbrod@gmail.com](mailto:billbrod@gmail.com)), Gizem Rufo<sup>2</sup>, Jonathan Winawer<sup>3</sup>, Eero P. Simoncelli<sup>1,3</sup>; <sup>1</sup>Flatiron Institute, <sup>2</sup>Meta, Inc., <sup>3</sup>New York University

### **53.422 An image-computable spatial receptive field model of the midget retinal ganglion cell mosaic**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion*

Nicolas Cottaris<sup>1</sup> ([cottaris@upenn.edu](mailto:cottaris@upenn.edu)), Brian Wandell<sup>2</sup>, David Brainard<sup>1</sup>; <sup>1</sup>University of Pennsylvania, Department of Psychology, <sup>2</sup>Stanford University, Department of Psychology

### **53.423 An Image-Computable Model of Orientation-Tuned Normalization**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion*

Ilona Bloem<sup>1</sup> ([ibloem@nyu.edu](mailto:ibloem@nyu.edu)), Iris Groen<sup>2</sup>, Kenichi Yuasa<sup>1</sup>, Giovanni Piantoni<sup>3</sup>, Stephanie Montenegro<sup>4</sup>, Adeen Flinker<sup>4</sup>, Sasha Devore<sup>4</sup>, Orrin Devinsky<sup>4</sup>, Werner Doyle<sup>4</sup>, Patricia Dugan<sup>4</sup>, Daniel Friedman<sup>4</sup>, Nick Ramsey<sup>3</sup>,

Michael Landy<sup>1</sup>, Natalia Petridou<sup>3</sup>, Jonathan Winawer<sup>1</sup>; <sup>1</sup>New York University, <sup>2</sup>University of Amsterdam, <sup>3</sup>University Medical Center Utrecht, <sup>4</sup>New York University School of Medicine

### **53.424 How does perceptual discrimination relate to neuronal receptive fields?**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion*

Jingyang Zhou<sup>1,2</sup> ([jyz205@nyu.edu](mailto:jyz205@nyu.edu)), Chanwoo Chung<sup>2,3</sup>; <sup>1</sup>Flatiron Institute, <sup>2</sup>New York University, <sup>3</sup>Weill Cornell Medicine of Cornell University

### **53.425 Plenoptic: A platform for synthesizing model-optimized visual stimuli**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion*

Lyndon Duong<sup>1</sup>, Kathryn Bonnen<sup>2</sup>, William Broderick<sup>3</sup>, Pierre-Étienne Fiquet<sup>1</sup>, Nikhil Parthasarathy<sup>1</sup>, Thomas Yerxa<sup>1</sup>, Xinyuan Zhao<sup>1</sup>, Eero Simoncelli<sup>1,3</sup>; <sup>1</sup>New York University, <sup>2</sup>Indiana University, <sup>3</sup>Flatiron Institute

## **Motion: Higher-order**

### **53.426 A new approach for the study of visual orientation perception and decisions**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion*

Ying Lin<sup>1,2</sup> ([ylin78@ur.rochester.edu](mailto:ylin78@ur.rochester.edu)), Jose Reynoso<sup>1,2,3</sup>, Zhen Chen<sup>1,2</sup>, Ralf Haefner<sup>1,2</sup>, Duje Tadin<sup>1,2</sup>; <sup>1</sup>University of Rochester, <sup>2</sup>Center for Visual Science, <sup>3</sup>School of Medicine and Dentistry

### **53.427 A rolling illusion counter to sensory signals and physical plausibility**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion*

Akihito Maruya<sup>1</sup> ([user3098@sunyopt.edu](mailto:user3098@sunyopt.edu)), Qasim Zaidi<sup>2</sup>; <sup>1</sup>State University of New York, College of Optometry

### **53.428 Does the Aubert-Fleischl phenomenon affect perceived object speed in realistic virtual scenes?**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion*

Bjoern Joerges<sup>1</sup> ([bjoerges@yorku.ca](mailto:bjoerges@yorku.ca)), Laurence R. Harris<sup>1</sup>; <sup>1</sup>Center for Vision Research, York University

### **53.429 Occluders help estimate time-to-contact in motion prediction tasks**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion*

Cristina de la Malla<sup>1</sup> ([c.delamalla@ub.edu](mailto:c.delamalla@ub.edu)), Pamela Villavicencio<sup>1</sup>, Joan López-Moliner<sup>1</sup>; <sup>1</sup>Vision and Control of Action (VISCA) Group, Department of Cognition, Development and Psychology of Education, Institute of Neurosciences, Universitat de Barcelona, Spain

### **53.430 The frame effect is suppressed for stationary probes.**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion*

Patrick Cavanagh<sup>1</sup> ([patcav1@yorku.ca](mailto:patcav1@yorku.ca)), Stuart Anstis<sup>2</sup>; <sup>1</sup>Glendon College and CVR, York University, <sup>2</sup>UCSD

### **53.431 What motion information can be retained within iconic memory?**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion*

Remy Allard<sup>1</sup> ([remy.allard@umontreal.ca](mailto:remy.allard@umontreal.ca)), Yara Mohiar<sup>1</sup>; <sup>1</sup>Université de Montréal

### **53.433 Like a Moth to the Flame: Visual Sensitivity to 2D and 3D Renderings of Growing**

## Fires

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion*

Micah D. Russell<sup>1</sup>, Justin W. Bonny<sup>1</sup>, Arnaud Trouvé<sup>2</sup>, James A. Milke<sup>2</sup>; <sup>1</sup>Morgan State University, <sup>2</sup>University of Maryland, College Park

### 53.434 Transformational Apparent Motion In A Recurrent Neural Network

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion*

Sharif Saleki<sup>1</sup> ([sharif.saleki.gr@dartmouth.edu](mailto:sharif.saleki.gr@dartmouth.edu)), Patrick Cavanagh<sup>2,3</sup>, Peter Tse<sup>1</sup>; <sup>1</sup>Dartmouth College, <sup>2</sup>Glendon College, Toronto, ON, Canada, <sup>3</sup>Centre for Visual Research, York university, Toronto, ON, Canada

## Attention: Bottom-up

### 53.435 Is Singleton Detection Really Less Effortful than Feature Search?

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion*

Sangji Lee<sup>1</sup> ([lee73769598@tamu.edu](mailto:lee73769598@tamu.edu)), Andrew Clement<sup>1</sup>, Brian Anderson<sup>1</sup>; <sup>1</sup>Texas A&M University

### 53.436 Serial search suppresses attentional capture by a singleton, but not attentional orienting by a spatial cue.

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion*

Hae Chan Jeong<sup>1</sup> ([hcczang71@naver.com](mailto:hcczang71@naver.com)), Suk Won Han<sup>1</sup>; <sup>1</sup>Chungnam National University

### 53.437 How we learn to ignore singleton distractors: Suppressing saliency signals or specific features?

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion*

Isaac Savelson<sup>1</sup> ([savelson.1@osu.edu](mailto:savelson.1@osu.edu)), Andrew B. Leber<sup>1</sup>; <sup>1</sup>The Ohio State University

### 53.438 A New Technique for Measuring the Saliency of Distractors

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion*

Brad T. Stilwell<sup>1</sup> ([stilwell@binghamton.edu](mailto:stilwell@binghamton.edu)), Howard Egeth<sup>2</sup>, Nicholas Gaspelin<sup>1</sup>; <sup>1</sup>State University of New York (SUNY) at Binghamton, <sup>2</sup>Johns Hopkins University

### 53.439 Task relevance changes the impact of salient items on attention

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion*

Greta Manini<sup>1,2</sup> ([gremanini@go.ugr.es](mailto:gremanini@go.ugr.es)), Elisa Martín-Arévalo<sup>1</sup>, Fabiano Botta<sup>1</sup>, Juan Lupiáñez<sup>1</sup>, Nancy Carlisle<sup>2</sup>; <sup>1</sup>University of Granada, <sup>2</sup>Lehigh University

### 53.440 Contextual cues reduce attentional capture

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion*

Jeff Moher<sup>1</sup> ([jmoher@gmail.com](mailto:jmoher@gmail.com)), Andrew Leber<sup>2</sup>; <sup>1</sup>Connecticut College, <sup>2</sup>The Ohio State University

### 53.441 Tracking exogenous attentional capture in an urgent covert perceptual choice task

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion*

Emily E Oor<sup>1</sup> ([oore220@wfu.edu](mailto:oore220@wfu.edu)), Anthony W Sali<sup>1</sup>; <sup>1</sup>Wake Forest University

## Eye Movements: Complex tasks

### 53.442 The influence of eye movements during perceptual judgements

Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion

Avi Aizenman<sup>1</sup> ([avigael\\_aizenman@berkeley.edu](mailto:avigael_aizenman@berkeley.edu)), Alexander Goettker<sup>1</sup>, Karl R. Gegenfurtner<sup>1</sup>; <sup>1</sup>Psychology Department, Justus-Liebig-University, Giessen

### 53.443 Linguistic processes intervene much later than visuo-motor processes during an eye fixation: Evidence from Fixation-Related Potentials during reading.

Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion

Régis Mancini<sup>1,2</sup> ([regis.mancini@univ-amu.fr](mailto:regis.mancini@univ-amu.fr)), Laure Spieser<sup>2</sup>, Eric Castet<sup>1</sup>, Boris Burle<sup>2</sup>, Françoise Vitu<sup>1</sup>; <sup>1</sup>Laboratoire de Psychologie Cognitive (LPC), <sup>2</sup>Laboratoire de Neurosciences Cognitives (LNC)

### 53.444 The effects of monocular and binocular retinal image minification during natural tasks

Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion

Iona R. McLean<sup>1</sup> ([ionamclean@berkeley.edu](mailto:ionamclean@berkeley.edu)), Ian M. Erkelens<sup>2</sup>, Esther F. Sherbak<sup>1</sup>, Loganne T. Mikkelsen<sup>1</sup>, Robin Sharma<sup>2</sup>, Emily A. Cooper<sup>1</sup>; <sup>1</sup>University of California, Berkeley, <sup>2</sup>Meta Reality Labs

### 53.445 How Task Instructions Influence Your Gaze in Daily Life

Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion

Andrea Ghiani<sup>1</sup> ([a.ghiani@vu.nl](mailto:a.ghiani@vu.nl)), David Mann<sup>1</sup>, Eli Brenner<sup>1</sup>; <sup>1</sup>Vrije Universiteit Amsterdam

### 53.446 Where are my students looking at? Using Gaze Synchronicity to Facilitate Online Learning

Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion

Marian Sauter<sup>1</sup>, Tobias Wagner<sup>1</sup>, Teresa Hirzle<sup>2</sup>, Enrico Rukzio<sup>1</sup>, Anke Huckauf<sup>1</sup>; <sup>1</sup>Ulm University, <sup>2</sup>University of Copenhagen

### 53.447 Oculomotor “laziness” constrains fixation selection in real-world tasks

Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion

Charlie S. Burlingham<sup>1,2</sup> ([csb455@nyu.edu](mailto:csb455@nyu.edu)), Naveen Sendhilnathan<sup>1</sup>, T. Scott Murdison<sup>3</sup>, Michael J. Proulx<sup>1</sup>; <sup>1</sup>Reality Labs Research, Meta Platforms Inc., <sup>2</sup>New York University, <sup>3</sup>Reality Labs, Meta Platforms Inc.

### 53.448 Ancestral visuo-motor computations in the midbrain underly readers' oculomotor behavior across spaced and unspaced languages

Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion

Françoise Vitu<sup>1</sup> ([francoise.vitu-thibault@univ-amu.fr](mailto:francoise.vitu-thibault@univ-amu.fr)), Hossein Adeli<sup>2</sup>, Gregory J. Zelinsky<sup>2</sup>; <sup>1</sup>Laboratoire de Psychologie Cognitive, CNRS, Aix-Marseille Université, <sup>2</sup>Stony Brook University

### 53.449 Eye and hand movements when playing a dynamic computer game (Pong)

Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion

Anna Schroeger<sup>1</sup> ([annaschroeger@gmail.com](mailto:annaschroeger@gmail.com)), Alexander Goettker<sup>1</sup>, Doris Braun<sup>1</sup>, Karl Gegenfurtner<sup>1</sup>; <sup>1</sup>Justus Liebig University Giessen

### **53.450 Processing load in pitch and rhythm notation reflects the discriminatory eye responses**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion*

Hyun Ji Kim<sup>1</sup> ([hyunjikim21@korea.ac.kr](mailto:hyunjikim21@korea.ac.kr)), Cahi-Youn Kim<sup>1</sup>; <sup>1</sup>School of Psychology, Korea University

### **53.451 Supervising is not the same as driving: the influence of the interaction between driving modality and time-on-driving on stationary gaze entropy during long, monotonous drive**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion*

Leandro Luigi Di Stasi<sup>1,2</sup> ([distasi@ugr.es](mailto:distasi@ugr.es)), Marcelo A. C. Fernandes<sup>2,3</sup>, Francesco Angioi<sup>2</sup>, Christophe Prat<sup>4</sup>, Jaka Sodnik<sup>5</sup>, Carolina Diaz-Piedra<sup>2,6</sup>; <sup>1</sup>Joint Centre University of Granada - Spanish Army Training and Doctrine Command, Spain, <sup>2</sup>Mind, Brain, and Behavior Research Center, University of Granada, Granada, Spain, <sup>3</sup>Department of Computer Engineering and Automation, UFRN, Natal, RN, Brazil, <sup>4</sup>Commissariat à l'énergie atomique et aux énergies alternatives-CEA, Grenoble, France, <sup>5</sup>University of Ljubljana. Faculty of Electrical Engineering, Ljubljana, Slovenia, <sup>6</sup>College of Nursing and Health Innovation, Arizona State University, Phoenix, AZ, USA

### **53.452 The Impact of Cognitive Differences on Processing COVID-19 Data Visualizations**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion*

Kristine Antonyan<sup>1</sup> ([kantonyan@ufl.edu](mailto:kantonyan@ufl.edu)), Do Hyong (Ryan) Koh<sup>1</sup>, Poorya Shidfar<sup>1</sup>, Pavlo Antonenko<sup>1</sup>; <sup>1</sup>University of Florida

### **53.453 Gaze Behavior While Detecting Changes in Spatial Gist in a Virtual Environment**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion*

Morgan LaFavers<sup>1</sup> ([u1207852@utah.edu](mailto:u1207852@utah.edu)), Scott Johnson<sup>2</sup>, David Evans<sup>2</sup>, Emily Tighe<sup>1</sup>, Charisse Spencer<sup>2</sup>, Sarah Creem-Regehr<sup>1</sup>, Jeanine Stefanucci<sup>1</sup>, Brent Chamberlain<sup>2</sup>; <sup>1</sup>Psychology Department, University of Utah, <sup>2</sup>Landscape Architecture and Environmental Planning Department, Utah State University

## **Visual Memory: Buildup, imagery, ensembles**

### **53.454 A computational modeling framework for ensemble perception**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion*

Jinhyeok Jeong<sup>1</sup> ([jjh00413@gmail.com](mailto:jjh00413@gmail.com)), Thomas Palmeri<sup>1</sup>; <sup>1</sup>Vanderbilt University

### **53.455 Building up visual memories from sensory evidence**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion*

Maria Robinson<sup>1</sup> ([mrobinson@ucsd.edu](mailto:mrobinson@ucsd.edu)), Isabella DeStefano<sup>2</sup>, Edward Vul<sup>3</sup>, Timothy Brady<sup>4</sup>; <sup>1</sup>University of California, San Diego

### **53.456 Comparison of Signal to Noise in Vision and Imagery for qualitatively different kinds of stimuli**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion*



Tiasha Saha Roy<sup>1</sup> (tsaharoy@umn.edu), Jesse Breedlove<sup>1</sup>, Ghislain St-Yves<sup>1</sup>, Kendrick Kay<sup>1</sup>, Thomas Naselaris<sup>1</sup>;  
<sup>1</sup>University of Minnesota

### **53.457 Imagery in a pair of aphantasic and non-aphantasic identical twins: Neural similarities and differences**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion*

Deepasri Prasad<sup>1,2</sup> (deepasri.prasad.gr@dartmouth.edu), Emma Megla<sup>2</sup>, Wilma A. Bainbridge<sup>2</sup>; <sup>1</sup>Dartmouth College, <sup>2</sup>University of Chicago

### **53.458 Top-down predictions of specific visual features in the brain speed up their bottom-up categorizations for perceptual decision**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion*

Yuening Yan<sup>1</sup> (yuening.yan@glasgow.ac.uk), Robin A.A. Ince<sup>1</sup>, Jiayu Zhan<sup>1</sup>, Oliver Garrod<sup>1</sup>, Philippe Schyns<sup>1</sup>;  
<sup>1</sup>University of Glasgow

### **53.459 The behavioral performance and cortical structural properties of aphantasia**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion*

Shuai Chang<sup>1</sup> (aaronchangshuai@outlook.com), Jinhui Wang<sup>1</sup>, Ming Meng<sup>1</sup>; <sup>1</sup>South China Normal University

### **53.460 Perceiving precarity (beyond instability) in block towers**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion*

Aalap D. Shah<sup>1</sup> (aalap.shah@yale.edu), Kimberly W. Wong<sup>1</sup>, Ilker Yildirim<sup>1</sup>, Brian Scholl<sup>1</sup>; <sup>1</sup>Yale University

### **53.461 Representational Momentum and Aerodynamics: Does drag force impact the representational momentum effect?**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion*

Genna Telschow<sup>1</sup>, Mark Neider<sup>1</sup>; <sup>1</sup>University of Central Florida

### **53.462 Are vividness judgments in mental imagery correlated with perceptual thresholds?**

*Tuesday, May 23, 2023, 8:30 am – 12:30 pm, Pavilion*

Ian Charest<sup>1</sup> (i.charest@bham.ac.uk), Clémence Bertrand Pilon<sup>1</sup>, Hugo Delhaye<sup>1</sup>, Vincent Taschereau-Dumouchel<sup>1,2,3</sup>, Frédéric Gosselin<sup>1</sup>; <sup>1</sup>cerebrum, Département de Psychologie, Université de Montréal, Montréal, Canada, <sup>2</sup>Département de Psychiatrie et d'addictologie, Université de Montréal, Montréal, Canada, <sup>3</sup>Centre de Recherche de l'Institut Universitaire en Santé Mentale de Montréal, Montréal, Canada

## **Tuesday Afternoon Posters in Banyan Breezeway**

### **Plasticity and Learning: Cortex**

#### **56.301 The neurochemistry of adult sensory eye dominance plasticity**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Ka Yee Kam<sup>1</sup>, Dorita H. F. Chang<sup>1</sup>; <sup>1</sup>Department of Psychology, The University of Hong Kong

#### **56.302 Visual experience is necessary for selectivity of faces over language in the**

## **fusiform**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Elizabeth Saccone<sup>1</sup> ([esaccon2@jhu.edu](mailto:esaccon2@jhu.edu)), N. Apurva Ratan Murty<sup>2</sup>, Judy Kim<sup>3</sup>, Akshi LNU<sup>1</sup>, Mengyu Tian<sup>1,4</sup>, Nancy Kanwisher<sup>2</sup>, Marina Bedny<sup>1</sup>; <sup>1</sup>Johns Hopkins University, <sup>2</sup>Massachusetts Institute of Technology, <sup>3</sup>Princeton University, <sup>4</sup>Beijing Normal University at Zhuhai

### **56.303 Neural predictors of surprise in controlled visual task and naturalistic viewing contexts**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Ziwei Zhang<sup>1</sup> ([zz112@uchicago.edu](mailto:zz112@uchicago.edu)), Monica Rosenberg<sup>1</sup>; <sup>1</sup>The University of Chicago

### **56.304 Neural representations of visual stimuli in primary visual cortex change as a function of threat and safety learning**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Lihan Cui<sup>1</sup> ([lihancui@ufl.edu](mailto:lihancui@ufl.edu)), Andreas Keil<sup>2</sup>, Mingzhou Ding<sup>1</sup>; <sup>1</sup>J Crayton Pruitt Family Department of Biomedical Engineering, University of Florida, <sup>2</sup>Department of Psychology and NIMH Center for Emotion and Attention, University of Florida

### **56.305 The medial prefrontal cortex and dorsolateral prefrontal cortex play complementary roles in facilitating visual perceptual learning during sleep**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Takashi Yamada<sup>1</sup> ([takashi\\_yamada@brown.edu](mailto:takashi_yamada@brown.edu)), Shazain Khan<sup>1</sup>, Peter Sage<sup>1</sup>, Pooja Kalyan<sup>1</sup>, Hana Berhe<sup>1</sup>, Yu-Ang Cheng<sup>1</sup>, Yusuke Nakashima<sup>1</sup>, Aaron Cochrane<sup>1</sup>, Takeo Watanabe<sup>1</sup>, Yuka Sasaki<sup>1</sup>; <sup>1</sup>Brown University

### **56.306 From repetition-based to reactivation-induced perceptual learning: engagement of higher-order attentional brain regions**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Taly Kondat<sup>1</sup> ([talykondat@mail.tau.ac.il](mailto:talykondat@mail.tau.ac.il)), Niv Tik<sup>1</sup>, haggai Sharon<sup>2</sup>, Ido Tavor<sup>1</sup>, Nitzan Censor<sup>1</sup>; <sup>1</sup>Sagol School of Neuroscience, Tel-Aviv University, <sup>2</sup>Tel Aviv Sourasky Medical Center

### **56.308 Direction discrimination training recovers fine orientation perception in V1-damage fields**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Matthew Cavanaugh<sup>1</sup> ([matthew\\_cavanaugh@urmc.rochester.edu](mailto:matthew_cavanaugh@urmc.rochester.edu)), Tina Liu<sup>2</sup>, Elisha Merriam<sup>2</sup>, Duje Tadin<sup>1</sup>, Krystel Huxlin<sup>1</sup>; <sup>1</sup>University of Rochester, <sup>2</sup>Laboratory of Brain and Cognition, National Institute of Mental Health

### **56.309 Bypassing V1: Orientation selectivity in hMT+ of cortically-blinded patients**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Tina T. Liu<sup>1</sup> ([tong.liu2@nih.gov](mailto:tong.liu2@nih.gov)), Helena P. Bachmann<sup>1</sup>, Matthew R. Cavanaugh<sup>2,3</sup>, Berkeley K. Fahrenthold<sup>2,3</sup>, Michael D. Melnick<sup>2,3,4</sup>, Shruti Japee<sup>1</sup>, Krystel R. Huxlin<sup>2,3,4</sup>, Elisha P. Merriam<sup>1</sup>; <sup>1</sup>Laboratory of Brain and Cognition, National Institute of Mental Health, NIH, Bethesda, MD, USA, <sup>2</sup>Flaum Eye Institute, University of Rochester Medical Center, Rochester, NY, USA, <sup>3</sup>Center for Visual Science, University of Rochester, Rochester, NY, USA, <sup>4</sup>Brain and Cognitive Sciences, University of Rochester, Rochester, NY, USA

### **56.310 The Timecourse of Distorted Representations in the Primary Visual Cortex**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

O. Batuhan Erkat<sup>1,2</sup>, Julien Corbo<sup>2</sup>, John P. McClure Jr.<sup>1,2</sup>, Pierre-Olivier Polack<sup>2</sup>; <sup>1</sup>Rutgers University - Newark, Behavioral and Neural Sciences Graduate Program, <sup>2</sup>Rutgers University - Newark, Center for Molecular and Behavioral Neuroscience

### **56.311 Short-term monocular deprivation in adult humans alters pulvino-cortical functional connectivity measured with resting-state fMRI at ultra-high field**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Miriam Acquafredda<sup>1,2</sup> ([miriam.acquafredda@unifi.it](mailto:miriam.acquafredda@unifi.it)), Laura Biagi<sup>3,4</sup>, Michela Tosetti<sup>3,4</sup>, Maria Concetta Morrone<sup>1</sup>, Paola Binda<sup>1</sup>; <sup>1</sup>University of Pisa, Italy, <sup>2</sup>University of Florence, Italy, <sup>3</sup>IRCCS Stella Maris, Calambrone, Pisa, Italy, <sup>4</sup>IMAGO Center, Pisa, Italy

## **Plasticity and Learning: Sensorimotor**

### **56.312 Using tools as cues for dual adaptation to opposing visuomotor rotations in virtual reality**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Andrew King<sup>1</sup> ([kinga21@yorku.ca](mailto:kinga21@yorku.ca)), Laura Mikula<sup>2</sup>, Shanaathanan Modchalingam<sup>3</sup>, Bernard Marius t'Hart<sup>4</sup>, Denise Henriques<sup>5</sup>; <sup>1</sup>York University, <sup>2</sup>Centre for Vision Research

### **56.313 Modulations of sensorimotor network through visual motor training in people with Parkinson's disease (PwPD)**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Joseph FX DeSouza<sup>1,2,7</sup> ([desouza@yorku.ca](mailto:desouza@yorku.ca)), J Royze Simon<sup>1,7</sup>, Ashkan Karimi<sup>2,7</sup>, Amita Agrawal<sup>2,7</sup>, Rebecca E Barnstaple<sup>1,3,7</sup>, Judith Bek<sup>6</sup>, Rachel Bar<sup>4</sup>, Karolina Bearss<sup>1</sup>, Katyoun Ghanai<sup>5,7</sup>; <sup>1</sup>Dept of Psychology, York University, <sup>2</sup>Interdisciplinary Graduate Studies, York University, <sup>3</sup>Chigamik Community Health Centre, Midland, <sup>4</sup>Canada's National Ballet School, Toronto, <sup>5</sup>Dept of Music, York University, <sup>6</sup>Faculty of Kinesiology and Physical Education, University of Toronto, <sup>7</sup>Centre for Vision Research, York University, Canada

### **56.314 Specific motor learning induced by space-variant visual feedback distortion of the hand position**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Giulia Sedda<sup>1</sup> ([giulia.sedda@unica.it](mailto:giulia.sedda@unica.it)), Giulia Olla<sup>1</sup>, Danilo Pani<sup>1</sup>; <sup>1</sup>Department of Electrical and Electronic Engineering (DIEE), University of Cagliari, Cagliari, Italy.

### **56.315 The effect of visual statistical learning on proactive motor control is modulated by transcranial random noise stimulation over frontoparietal cortex.**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Giulia Ellena<sup>1</sup> ([giulia.ellena@iit.it](mailto:giulia.ellena@iit.it)), Federica Contò<sup>1</sup>, Michele Tosi<sup>1,2</sup>, Lorella Battelli<sup>1,3</sup>; <sup>1</sup>Center for Neuroscience and Cognitive Systems@UniTn, Istituto Italiano di Tecnologia, Rovereto, Italy, <sup>2</sup>Center for Mind/Brain Sciences, University of Trento, Rovereto, Italy, <sup>3</sup>Department of Neurology, Beth Israel Hospital, Harvard Medical School, Boston, USA

## 56.316 The domain-specific contribution of working memory to sensorimotor learning

Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway

Sean O'Bryan<sup>1</sup> ([sean\\_obryan@brown.edu](mailto:sean_obryan@brown.edu)), Joshua Liddy<sup>1,2</sup>, Joo-Hyun Song<sup>1</sup>; <sup>1</sup>Brown University, <sup>2</sup>University of Massachusetts - Amherst

## 56.317 Effects of different kinds of feedback on unconscious action learning and unconscious perception learning

Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway

Jie Gao<sup>1</sup> ([jiegao@m.scnu.edu.cn](mailto:jiegao@m.scnu.edu.cn)), Zhiqing Deng<sup>1</sup>, Jiantong Ye<sup>1</sup>, Yichong Zhang<sup>1</sup>, Juan Chen<sup>1,2</sup>; <sup>1</sup>Center for the Study of Applied Psychology, Guangdong Key Laboratory of Mental Health and Cognitive Science, and the School of Psychology, South China Normal University, Guangzhou, Guangdong Province, 510631, China, <sup>2</sup>Key Laboratory of Brain, Cognition and Education Sciences (South China Normal University), Ministry of Education

## Perception & Action: Grasping

### 56.318 Grasping type affects Configural Encoding in Visual Working Memory

Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway

Shinhae Ahn<sup>1</sup> ([a.shinhae@wustl.edu](mailto:a.shinhae@wustl.edu)), Hyung-Bum Park<sup>2</sup>, Richard A. Abrams<sup>1</sup>; <sup>1</sup>Washington University in St. Louis, <sup>2</sup>University of California, Riverside

### 56.319 Looking at the Ebbinghaus illusion: differences in fixations fail to explain a classic perception-action dissociation

Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway

Robert Whitwell<sup>1</sup>, Mel Goodale<sup>1</sup>, Mehul Garach<sup>2</sup>, Irene Sperandio<sup>3</sup>; <sup>1</sup>The University of Western Ontario, London, Canada, <sup>2</sup>Windsor Regional Hospital, Windsor, Canada, <sup>3</sup>University of Trento, Rovereto, Italy

### 56.320 Multisensory grasping relies on individual finger positions and their joint relationship

Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway

Ivan Camponogara<sup>1</sup> ([ic39@nyu.edu](mailto:ic39@nyu.edu)), Robert Volcic<sup>1</sup>; <sup>1</sup>New York University Abu Dhabi

### 56.321 Visual selection of multi-digit contact surfaces for objects of varying mass

Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway

Kira Isabel Dehn<sup>1</sup> ([kira.i.dehn@psychol.uni-giessen.de](mailto:kira.i.dehn@psychol.uni-giessen.de)), Guido Maiello<sup>1</sup>, Fabrizio Lepori<sup>1,2</sup>, Frieder Hartmann<sup>1</sup>, Constantin A. Rothkopf<sup>3</sup>, Roland W. Fleming<sup>1,4</sup>; <sup>1</sup>Justus Liebig University Giessen, <sup>2</sup>University of Genoa, <sup>3</sup>Technical University of Darmstadt, <sup>4</sup>Centre for Mind, Brain and Behaviour (CMBB), University of Marburg and Justus Liebig University Giessen

### 56.322 The simultaneous tilt illusion reveals separate yet interacting visual systems for perception and action

Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway

Hasan A. Hasan<sup>1</sup> ([hasanh822@gmail.com](mailto:hasanh822@gmail.com)), James T. Enns<sup>1</sup>, Robert L. Whitwell<sup>2</sup>; <sup>1</sup>University of British Columbia, Vancouver, Canada, <sup>2</sup>Western University, London, Canada

### **56.323 Visually occluded grasp modulates orientation representation in human early visual cortex**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Thanaphop Threethiphikoon<sup>1</sup> ([238003r@gs.kochi-tech.ac.jp](mailto:238003r@gs.kochi-tech.ac.jp)), Zhen Li<sup>2</sup>, Hiroaki Shigemasa<sup>1</sup>; <sup>1</sup>Kochi University of Technology, <sup>2</sup>University of Hong Kong

### **56.324 Shape Influences Perceived Ease of Grasping**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

McKenzie Gunter<sup>1</sup> ([w10149389@usm.edu](mailto:w10149389@usm.edu)), Tyler Overstreet<sup>1</sup>, Catherine Dowell<sup>1</sup>, Alen Hajnal<sup>1</sup>; <sup>1</sup>University of Southern Mississippi

### **56.325 Abstract representations of grasping action parameters in the dorsal stream**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Naama Zur<sup>1</sup> ([nrz9@georgetown.edu](mailto:nrz9@georgetown.edu)), Yuqi Liu<sup>1,2</sup>, Sriparna Sen<sup>1</sup>, Nanak Nihal Khalsa<sup>1</sup>, Jody Culham<sup>3,4</sup>, Ella Striem-Amit<sup>1</sup>; <sup>1</sup>Georgetown University, <sup>2</sup>Institute of Neuroscience, Key Laboratory of Primate Neurobiology, CAS Center for Excellence in Brain Sciences and Intelligence Technology, Chinese Academy of Sciences, Shanghai, China; <sup>3</sup>Department of Psychology, University of Western Ontario, London, Ontario, N6A 5C2, Canada; <sup>4</sup>Brain and Mind at Western, Western Interdisciplinary Research Building, University of Western Ontario, London, Ontario, N6A 3K7, Canada

### **56.326 How humans visually select how and where to grasp objects with articulated hands**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Frieder Hartmann<sup>1</sup> ([frieder.hartmann@psychol.uni-giessen.de](mailto:frieder.hartmann@psychol.uni-giessen.de)), Guido Maiello<sup>1</sup>, Fabrizio Lepori<sup>1,2</sup>, Kira Dehn<sup>1</sup>, Constantin A. Rothkopf<sup>3</sup>, Rolan W. Fleming; <sup>1</sup>Justus Liebig University Gießen, <sup>2</sup>Department of Informatics, Bioengineering, Robotics, and Systems Engineering, University of Genoa, <sup>3</sup>Institute of Psychology & Centre for Cognitive Science, Technical University of Darmstadt, <sup>4</sup>4. Centre for Mind, Brain and Behaviour (CMBB), University of Marburg and Justus Liebig University Giessen

## **3D: Spatial layout and VR/AR**

### **56.327 Psychophysical scale of optical distortions of multifocal spectacle lenses**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Yannick Sauer<sup>1</sup> ([yannick.sauer@uni-tuebingen.de](mailto:yannick.sauer@uni-tuebingen.de)), David-Elias Künstle<sup>1</sup>, Felix Wichmann<sup>1</sup>, Siegfried Wahl<sup>1,2</sup>; <sup>1</sup>University of Tübingen, <sup>2</sup>Carl Zeiss Vision International GmbH, Aalen, Germany

### **56.328 People Separate Allocentric and Egocentric Cues to Judge Orientation of their Surroundings and the Self**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Jong-Jin Kim<sup>1</sup> ([johnk84@yorku.ca](mailto:johnk84@yorku.ca)), Pierre-Pascal Forster<sup>2</sup>, Meaghan McManus<sup>2</sup>, Katja Fiehler<sup>2</sup>, Laurence Harris<sup>1,3</sup>; <sup>1</sup>Center for Vision Research, York University, <sup>2</sup>Justus Liebig University Giessen, <sup>3</sup>Department of Psychology, York University

### **56.329 Perceived absolute distances in the intermediate distance range (>2 m) affected by binocular vision and target duration**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Yiya Chen<sup>1</sup>, Zijiang He<sup>2</sup>, Teng Leng Ooi<sup>1</sup>; <sup>1</sup>The Ohio State University, <sup>2</sup>University of Louisville

### **56.330 Tracking Perceptual Depth with Eye Vergence Movements in Real World, Augmented Reality, and Virtual Reality Environments**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Mohammed Safayet Arefin<sup>1</sup> ([arefin@acm.org](mailto:arefin@acm.org)), J. Edward Swan II<sup>2</sup>, Russell Cohen Hoffing<sup>1</sup>, Steven M. Thurman<sup>1</sup>; <sup>1</sup>DEVCOM US Army Research Laboratory, <sup>2</sup>Mississippi State University, USA

### **56.331 A method to align real and virtual objects for mixed reality investigations of visually guide grasping**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Fabrizio Lepori<sup>1,2</sup> ([fabrizio.lep96@gmail.com](mailto:fabrizio.lep96@gmail.com)), Guido Maiello<sup>1</sup>, Kira Dehn<sup>1</sup>, Frieder Hartmann<sup>1</sup>, Manuela Chessa<sup>2</sup>, Constantin A. Rothkopf<sup>3</sup>, Roland W. Fleming<sup>1,4</sup>; <sup>1</sup>Department of Experimental Psychology, Justus Liebig University Giessen, <sup>2</sup>Department of Informatics, Bioengineering, Robotics, and Systems Engineering, University of Genoa, <sup>3</sup>Institute of Psychology & Centre for Cognitive Science, Technical University of Darmstadt, <sup>4</sup>Centre for Mind, Brain and Behaviour (CMBB), University of Marburg and Justus Liebig University Giessen

### **56.332 Angular Expansion in Perceived Elevation Without a Visual Ground Plane**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Prince Tardeh<sup>1</sup>, Crystal Xu<sup>1</sup>, Andrew Cheng<sup>1</sup>, Frank Durgin<sup>1</sup>; <sup>1</sup>Swarthmore College

### **56.333 Vection, presence, and cybersickness in a virtual reality driving simulation**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Benjamin Hughes<sup>1</sup> ([bephughe@ucsc.edu](mailto:bephughe@ucsc.edu)), Hassan Naeem<sup>1</sup>, Nicolas Davidenko<sup>1</sup>; <sup>1</sup>University of California, Santa Cruz

### **56.334 Perceived location of a static target in the dark affected by self-motion in the natural environment**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Lizhu Yan<sup>1</sup> ([lizhu.yan@louisville.edu](mailto:lizhu.yan@louisville.edu)), Lingling Bai<sup>1</sup>, Teng Leng Ooi<sup>2</sup>, Zijiang He<sup>1</sup>; <sup>1</sup>University of Louisville, <sup>2</sup>The Ohio State University

### **56.336 Pupil responses to near and far stimuli at varying fixation depths in virtual reality**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Marnix Naber<sup>1</sup> ([marnixnaber@gmail.com](mailto:marnixnaber@gmail.com)), Brendan Portengen<sup>1,2</sup>, Christoph Strauch<sup>1</sup>; <sup>1</sup>Experimental Psychology, Helmholtz Institute, Utrecht University, The Netherlands, <sup>2</sup>Ophthalmology, University Medical Center Utrecht, The Netherlands

### **56.337 No evidence for a 'close advantage' effect in virtual reality**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Rebecca Hornsey<sup>1</sup> ([rlhornsey@outlook.com](mailto:rlhornsey@outlook.com)), Laurie Wilcox<sup>1</sup>, Erez Freud<sup>1</sup>; <sup>1</sup>York University

### **56.338 Affordances and expectations about depth play a role in real objects' access to visual awareness**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Uri Korisky<sup>1,2</sup> ([uri.korisky@gmail.com](mailto:uri.korisky@gmail.com)), Niv Cohen<sup>1</sup>, Mor Farjun<sup>1</sup>, Noa Kaner<sup>1</sup>, Yael Solar<sup>1</sup>, Liad Mudrik<sup>1</sup>; <sup>1</sup>Tel Aviv University, <sup>2</sup>Hebrew University of Jerusalem

### **56.339 Correct rendering blur**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Khatar Alshammari<sup>1</sup>; <sup>1</sup>-

### **56.340 Exploration of laser-based augmented reality device in the investigation of melanopsin's role in human vision, via direct stimulation of the blind spot.**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Amir Vala Tavakoli<sup>1</sup> ([amirvala@caltech.edu](mailto:amirvala@caltech.edu)), Teppei Imamura<sup>2</sup>, Ryo Ogawa<sup>2</sup>, Masanori Iwasaki<sup>2</sup>, Takanobu Omata<sup>2</sup>, Jesus del Rio Salgado<sup>1</sup>, Iyla Rossi<sup>1</sup>, Shao-Min Hung<sup>3</sup>, Daw-An Wu<sup>1</sup>, Shinsuke Shimojo<sup>1</sup>; <sup>1</sup>Division of Biology and Biological Engineering, California Institute of Technology, <sup>2</sup>Sony Group Corporation, <sup>3</sup>Faculty of Science and Engineering, Waseda University

## **Eye Movements: Scenes, VR, 3D**

### **56.341 GAZE - a benchmark sample of free gaze behaviour towards complex scenes**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Marcel Linka<sup>1</sup> ([marcellinka54@gmail.com](mailto:marcellinka54@gmail.com)), Harun Karimpur<sup>1</sup>, Benjamin de Haas<sup>1</sup>; <sup>1</sup>Department of Experimental Psychology, Justus-Liebig-University Giessen

### **56.342 The influence of semantics and scene congruence on visual change detection during saccades**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Brian Odegaard<sup>1</sup> ([bodegaard@ufl.edu](mailto:bodegaard@ufl.edu)), Isaac Lee<sup>2</sup>, Alan L.F. Lee<sup>2</sup>, Addison Sans<sup>1</sup>, Leo Ng<sup>2</sup>, Ryan Faulkner<sup>1</sup>, Andrew Haun<sup>3</sup>, Dana Chesney<sup>4</sup>, David Rosenthal<sup>5</sup>, Francis Fallon<sup>4</sup>; <sup>1</sup>University of Florida, <sup>2</sup>Lingnan University, <sup>3</sup>University of Wisconsin, <sup>4</sup>St. John's University, <sup>5</sup>City University of New York

### **56.343 The Role of Prediction During Continuous Visual Tracking in 3D Environments**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Aleksandra Marijan<sup>1</sup> ([amarija@iu.edu](mailto:amarija@iu.edu)), Clara Mestre<sup>1</sup>, T Rowan Candy<sup>1</sup>, Kathryn Bonnen<sup>1</sup>; <sup>1</sup>Indiana University

### **56.344 Cues for predictive eye movements in naturalistic scenes**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Alexander Goettker<sup>1</sup> ([alexander.goettker@psychol.uni-giessen.de](mailto:alexander.goettker@psychol.uni-giessen.de)), Karl Gegenfurtner<sup>1</sup>; <sup>1</sup>Justus Liebig University Giessen

### **56.345 Vergence performance to natural images of different sizes**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Clara Mestre<sup>1</sup> ([cmestre@iu.edu](mailto:cmestre@iu.edu)), Alyssa Powell<sup>1</sup>, Tanner Grace<sup>1</sup>, T. Rowan Candy<sup>1</sup>; <sup>1</sup>Indiana University

### **56.346 Dynamics of gaze and body while viewing omnidirectional stimuli**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Erwan David<sup>1</sup> ([david@psych.uni-frankfurt.de](mailto:david@psych.uni-frankfurt.de)), Melissa Vo<sup>1</sup>; <sup>1</sup>Scene Grammar Lab, Goethe University Frankfurt

### **56.347 Reconstructing pupillary dynamics during free-viewing of movies: the roles of pupil light and orienting responses**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Yuqing Cai<sup>1</sup> ([y.cai2@uu.nl](mailto:y.cai2@uu.nl)), Christoph Strauch<sup>1</sup>, Marnix Naber<sup>1</sup>; <sup>1</sup>Experimental Psychology, Helmholtz Institute, Faculty of Social Sciences, Utrecht University, The Netherlands

### **56.348 Looking for potential action: Differences in exploration behavior of static and (potentially) dynamic scenes**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Nicolas Roth<sup>1,2</sup> ([roth@tu-berlin.de](mailto:roth@tu-berlin.de)), Jasper McLaughlin<sup>1</sup>, Klaus Obermayer<sup>1,2</sup>, Martin Rolfs<sup>1,3</sup>; <sup>1</sup>Cluster of Excellence Science of Intelligence, <sup>2</sup>Technische Universität Berlin, <sup>3</sup>Humboldt-Universität zu Berlin

### **56.349 Free Moving Gaze-related Electroencephalography in Mobile Virtual Environments**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Ying Choon Wu<sup>1</sup> ([yingchoon@gmail.com](mailto:yingchoon@gmail.com)), Chiyuan Chang<sup>1</sup>, Weichen Liu<sup>1</sup>, Cory Stevenson<sup>2</sup>, Russell Cohen Hoffing<sup>3</sup>, Steven Thurman<sup>3</sup>, Tzyy-Ping Jung<sup>1</sup>; <sup>1</sup>UC San Diego, <sup>2</sup>National Yang Ming Chiao Tung University, <sup>3</sup>Army Research Laboratory

## **Motion: Optic flow**

### **56.350 Recasting visual areas specialized for processing optic flow in the human brain**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Li Li<sup>1,2</sup> ([ll114@nyu.edu](mailto:ll114@nyu.edu)), Xuechun Shen<sup>3,2</sup>, Shuguang Kuai<sup>3,2</sup>; <sup>1</sup>Faculty of Arts and Science, New York University Shanghai, Shanghai, China, <sup>2</sup>NYU-ECNU Institute of Brain and Cognitive Science at New York University Shanghai, Shanghai, China, <sup>3</sup>School of Psychology and Cognitive Science, East China Normal University, Shanghai, China

### **56.351 Retinal flow controls gait during natural locomotion**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Daniel Panfili<sup>1</sup> ([dan.panfili@utexas.edu](mailto:dan.panfili@utexas.edu)), Nathaniel Powell<sup>2</sup>, Youjin Oh<sup>3</sup>, Mary Hayhoe<sup>4</sup>; <sup>1</sup>University of Texas at Austin

### **56.352 Retinal optic flow during real-world behavior**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Jonathan Matthis<sup>1</sup> ([jonmatthis@gmail.com](mailto:jonmatthis@gmail.com)), Trenton Wirth<sup>1</sup>; <sup>1</sup>Northeastern University

### **56.353 Speed estimation for spatiotemporally bound and unbound motion stimuli**



*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Giuliana Martinatti Giorjiani<sup>1,2</sup> ([giuliana.mg17@gmail.com](mailto:giuliana.mg17@gmail.com)), Rosanne L. Rademaker<sup>1</sup>; <sup>1</sup>Ernst Strüngmann Institute for Neuroscience in Cooperation with the Max Planck Society, Frankfurt in Main, Germany, <sup>2</sup>Department of Cognitive Neuroscience, Vrije Universiteit Amsterdam, The Netherlands

### **56.354 Temporal stability of human heading perception**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Oliver Layton<sup>1</sup> ([oliver.layton@colby.edu](mailto:oliver.layton@colby.edu)), Eli Decker<sup>1</sup>, Mufaddal Ali<sup>1</sup>; <sup>1</sup>Colby College

### **56.355 The Effects of Environmental Structure and Texture on Perceived Travel Distance**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Ambika Bansal<sup>1</sup> ([ambikatarabansal@gmail.com](mailto:ambikatarabansal@gmail.com)), Meaghan McManus<sup>2</sup>, Katja Fiehler<sup>2</sup>, Laurence R. Harris<sup>1</sup>; <sup>1</sup>Centre for Vision Research, York University, <sup>2</sup>Justus-Liebig University Giessen

### **56.356 Travel distance estimation from biological motion and optic flow**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Anna-Gesina Hülemeier<sup>1</sup> ([huelemeier@wwu.de](mailto:huelemeier@wwu.de)), Markus Lappe<sup>2</sup>; <sup>1</sup>University of Münster

### **56.357 Natural scene statistics of figure-ground motion in MT receptive fields**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Clara Tenia Wang<sup>1</sup> ([cl.wang@berkeley.edu](mailto:cl.wang@berkeley.edu)), Minqi Wang<sup>1</sup>, Xin Huang<sup>2</sup>, Emily A. Cooper<sup>1</sup>; <sup>1</sup>University of California, Berkeley, Berkeley, CA, <sup>2</sup>University of Wisconsin-Madison, Madison, WI

### **56.358 Comparing Visual and Omniscient Models of Collective Crowd Motion**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

James Falandays<sup>1</sup> ([james\\_falandays@brown.edu](mailto:james_falandays@brown.edu)), William Warren<sup>1</sup>; <sup>1</sup>Brown University

## **Perceptual Organization: Contour integration, common fate**

### **56.359 A moving watercolor illusion**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Austin Kral<sup>1</sup>, James Brown<sup>1</sup>; <sup>1</sup>University of Georgia

### **56.360 Contour Integration Using Boundary and Region Information**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Doreen Hii<sup>1</sup> ([doreen.hii@uci.edu](mailto:doreen.hii@uci.edu)), Zygmunt Pizlo<sup>1</sup>; <sup>1</sup>University of California, Irvine

### **56.361 Detecting Correlated Target Motion in Moving and Static Dot Arrays**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Bernice Rogowitz<sup>1</sup> ([bernice.e.rogowitz@gmail.com](mailto:bernice.e.rogowitz@gmail.com)), Christophe Hurter<sup>2</sup>; <sup>1</sup>Visual Perspectives Research, <sup>2</sup>ENAC, French Civil Aviation University, University of Toulouse France

### **56.362 Feature-selective mechanisms that underlie the perception of causality**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Sven Ohl<sup>1</sup> ([sven.ohl@hu-berlin.de](mailto:sven.ohl@hu-berlin.de)), Martin Rolfs<sup>2</sup>; <sup>1</sup>Humboldt-Universität zu Berlin

### **56.363 Gestalt grouping vs. ensemble perception when following a crowd**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

William Warren<sup>1</sup>, Meghan Willcoxon<sup>1</sup>; <sup>1</sup>Brown University, Providence, RI USA

### **56.365 High Spatial Frequency Stimuli Amplify Visual Integration Deficits in Schizophrenia and Bipolar Disorder**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Banyan Breezeway*

Yonatan Ahrham<sup>1</sup> ([yabrham@ur.rochester.edu](mailto:yabrham@ur.rochester.edu)), Megan Serody<sup>2</sup>, Bart Krekelberg<sup>3</sup>, Judy Thompson<sup>1</sup>, Steven Silverstein<sup>1</sup>, Michael Cole<sup>3</sup>, Deanna Barch<sup>4</sup>, Laura Crespo<sup>5</sup>, Brian Keane<sup>1</sup>; <sup>1</sup>University of Rochester, <sup>2</sup>Stony Brook University, <sup>3</sup>Rutgers University, Newark, <sup>4</sup>Washington University in St. Louis, <sup>5</sup>University of Chicago

## **Tuesday Afternoon Posters in Pavilion**

### **Object Recognition: Categories**

#### **56.401 Visuo-semantic clashes: What happens when objects do not look like they should?**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion*

Inga María Ólafsdóttir<sup>1,3</sup> ([ingao@ru.is](mailto:ingao@ru.is)), Marelle Maeekalle<sup>2,3</sup>, Heida Maria Sigurdardottir<sup>2,3</sup>; <sup>1</sup>Reykjavik University, <sup>2</sup>University of Iceland, <sup>3</sup>Icelandic Vision Lab

#### **56.402 Control of BOLD fMRI Responses Via Stimuli Generated with Voxel-Weighted Neural Network Activation Maximization**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion*

Matthew Shinkle<sup>1</sup> ([mshinkle1040@gmail.com](mailto:mshinkle1040@gmail.com)), Mark Lescroart<sup>1</sup>; <sup>1</sup>University of Nevada, Reno

#### **56.403 Assessing the feasibility of high stimulus presentation rates for contrasting conditions in functional MRI studies**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion*

Johannes Roth<sup>1</sup>, Yoichi Miyawaki<sup>2</sup>, Martin N. Hebart<sup>1</sup>; <sup>1</sup>Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, <sup>2</sup>University of Electro-Communications, Tokyo

#### **56.404 Category trumps shape as an organizational principle of object space in the human occipitotemporal cortex**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion*

Elahe Yargholi<sup>1</sup> ([elahe.yargholi@kuleuven.be](mailto:elahe.yargholi@kuleuven.be)), Hans Op de Beeck<sup>1</sup>; <sup>1</sup>KU Leuven

#### **56.405 Comparing Human Object Learning with Deep Neural Networks**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion*

Yinuo Peng<sup>1</sup>, Zhen Zhu<sup>1</sup>, Derek Hoiem<sup>1</sup>, Ranxiao Frances Wang<sup>1</sup>; <sup>1</sup>University of Illinois at Urbana-Champaign

#### **56.406 Optimizing Naturalistic Object Categorization with Diagnostic Low-Level Visual**

## Information

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion*

Yongzhen Xie<sup>1</sup> ([yongzhen.xie@mail.utoronto.ca](mailto:yongzhen.xie@mail.utoronto.ca)), Michael Mack<sup>1</sup>; <sup>1</sup>Department of Psychology, University of Toronto

### **56.407 Temporal dynamics of stereoscopic object classification**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion*

Zhen Li<sup>1</sup> ([li\\_zhen22@qq.com](mailto:li_zhen22@qq.com)), Dorita H. F. Chang<sup>1</sup>; <sup>1</sup>The University of Hong Kong

### **56.408 The tortoise and the hare: Fast and slow learners in an object categorization task**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion*

James Tanaka<sup>1</sup> ([jtanaka@uvic.ca](mailto:jtanaka@uvic.ca)), Kyla Basbaum<sup>1</sup>, Amy vanWell<sup>1</sup>, Anna Lawrance<sup>1</sup>, Cole Tamburri<sup>1</sup>; <sup>1</sup>University of Victoria, Canada

### **56.409 Visual adaptation to non-face animate objects elicits temporally robust high-level aftereffects**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion*

Antonia Reindl<sup>1</sup> ([antonia.reindl@hu-berlin.de](mailto:antonia.reindl@hu-berlin.de)), Gerhard Scholtz<sup>1</sup>, Torsten Schubert<sup>2</sup>; <sup>1</sup>Humboldt-Universität zu Berlin, <sup>2</sup>Martin-Luther-Universität Halle-Wittenberg

### **56.410 A common neural code for representing imagined and inferred tastes**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion*

Jason Avery<sup>1</sup> ([jason.avery@nih.gov](mailto:jason.avery@nih.gov)), Madeline Carrington<sup>2</sup>, Alex Martin<sup>3</sup>; <sup>1</sup>National Institute of Mental Health

### **56.411 Probing feature spaces of object categories with a drawing task**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion*

Henning Tiedemann<sup>1</sup>, Yaniv Morgenstern<sup>2</sup>, Filipp Schmidt<sup>1</sup>, Roland W Fleming<sup>1</sup>; <sup>1</sup>University of Giessen, <sup>2</sup>University of Leuven

### **56.412 The Sequential categorization identification paradigm: A New paradigm for combined inferences**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion*

Aylin Ak<sup>1</sup> ([aylin.ak-1@ou.edu](mailto:aylin.ak-1@ou.edu)), Michael Wenger<sup>1</sup>, James Townsend<sup>2</sup>, Sarah Newbolds<sup>1</sup>; <sup>1</sup>University of Oklahoma, <sup>2</sup>Indiana University

## Object Recognition: Neural mechanisms

### **56.413 Spatial-frequency channels for object recognition by neural networks are twice as wide as those of humans**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion*

Ajay Subramanian<sup>1</sup> ([as15003@nyu.edu](mailto:as15003@nyu.edu)), Elena Sizikova<sup>1</sup>, Najib J. Majaj<sup>1</sup>, Denis G. Pellli<sup>1</sup>; <sup>1</sup>New York University

### **56.414 Detectability of optogenetic stimulation in inferior temporal cortex in non-**

## human primates depends on the plausibility of a corresponding visual event in the external world

Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion

Rosa Lafer-Sousa<sup>1</sup> ([rosa.lafer-sousa@nih.gov](mailto:rosa.lafer-sousa@nih.gov)), Elia Shahbazi<sup>1</sup>, Karen Wang<sup>2</sup>, Tyler Swedan<sup>1</sup>, Arash Afraz<sup>1</sup>;

<sup>1</sup>National Institute of Mental Health, <sup>2</sup>University of Southern California

## 56.415 Neurons in macaque V4 prefer natural images to scrambled textures

Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion

Justin D. Lieber<sup>1</sup> ([justinlieber@nyu.edu](mailto:justinlieber@nyu.edu)), Timothy D. Oleskiw<sup>1,2</sup>, Eero P. Simoncelli<sup>1,2</sup>, J. Anthony Movshon<sup>1</sup>; <sup>1</sup>New York University, <sup>2</sup>Flatiron Institute

## 56.416 Probing the role of bypass connections in core object recognition by chemogenetic suppression of macaque V4 neurons

Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion

Kohitij Kar<sup>1</sup> ([kohitij@mit.edu](mailto:kohitij@mit.edu)); <sup>1</sup>Department of Biology, Centre for Vision Research, York University, Toronto, Canada

## 56.417 Simultaneous recordings from posterior and anterior body-responsive regions in the macaque Superior Temporal Sulcus.

Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion

Anna Bognar<sup>1,2</sup> ([anna.bognar@kuleuven.be](mailto:anna.bognar@kuleuven.be)), Albert Mukovskiy<sup>3</sup>, Ghazal Ghamkhari Nejad<sup>1,2</sup>, Nick Taubert<sup>3</sup>, Michael Stettler<sup>3</sup>, Rajani Raman<sup>1,2</sup>, Martin Giese<sup>3</sup>, Rufin Vogels<sup>1,2</sup>; <sup>1</sup>Department of Neuroscience, KU Leuven, Leuven, Belgium, <sup>2</sup>Leuven Brain Institute, KU Leuven, Leuven, Belgium, <sup>3</sup>HIH&CIN, Department of Cognitive Neurology, University Clinic Tübingen, Tübingen, Germany

## 56.418 Adaptation to numerosity changes monotonic responses of early visual cortex

Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion

Liangyou Zhang<sup>1</sup> ([l.zhang6@uu.nl](mailto:l.zhang6@uu.nl)), Evi Hendriks<sup>1</sup>, Yizhen Wang<sup>2</sup>, Serge O. Dumoulin<sup>1,3,4,5</sup>, Ben M. Harvey<sup>1</sup>; <sup>1</sup>Experimental Psychology, Helmholtz Institute, Utrecht University, <sup>2</sup>School of Psychology, South China Normal University, <sup>3</sup>Spinoza Centre for Neuroimaging, <sup>4</sup>Computational Cognitive Neuroscience and Neuroimaging, Netherlands Institute for Neuroscience, <sup>5</sup>Experimental and Applied Psychology, Vrije University Amsterdam

## 56.419 Color and Shape Contingency Representations in Rhesus Macaques

Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion

Spencer Loggia<sup>1</sup> ([spencer.loggia@nih.gov](mailto:spencer.loggia@nih.gov)), Stuart Duffield<sup>1</sup>, Kurt Braunlich<sup>1,2</sup>, James Cavanaugh<sup>1</sup>, Bevil Conway<sup>1</sup>;

<sup>1</sup>National Eye Institute, <sup>2</sup>National Institute of Mental Health

## 56.420 Recurrent processing in the visual cortex during object recognition

Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion

Timothée Maniquet<sup>1,2,3</sup> ([tim.maniquet@kuleuven.be](mailto:tim.maniquet@kuleuven.be)), Andrea Costantino<sup>1,2</sup>, Hans Op de Beeck<sup>1,2</sup>; <sup>1</sup>KU Leuven, <sup>2</sup>Leuven Brain Institute, <sup>3</sup>Research Foundation – Flanders

## 56.421 The effects of visual backward masking on visual spatiotemporal dynamics

Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion

Siyang Xie<sup>1</sup> ([siyang.xie@outlook.com](mailto:siyang.xie@outlook.com)), Daniel Kaiser<sup>2,3</sup>, Johannes Singer<sup>1</sup>, Radoslaw Cichy<sup>1,4,5,6</sup>; <sup>1</sup>Freie Universität Berlin, <sup>2</sup>Justus-Liebig-Universität Gießen, <sup>3</sup>Center for Mind, Brain and Behavior (CMBB), Philipps-Universität Marburg and Justus-Liebig-Universität Gießen, <sup>4</sup>Berlin School of Mind and Brain, Humboldt-Universität zu Berlin, <sup>5</sup>Einstein Center for Neurosciences Berlin, Charité-Universitätsmedizin Berlin, <sup>6</sup>Bernstein Center for Computational Neuroscience Berlin, Humboldt-Universität zu Berlin

### **56.422 Changes in the speed of visual processing between foveola and perifovea: a combined behavioral and EEG investigation**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion*

Martina Poletti<sup>1</sup> ([martina\\_poletti@urmc.rochester.edu](mailto:martina_poletti@urmc.rochester.edu)), Samantha K. Jenks<sup>1</sup>, Alessandro Benedetto<sup>1</sup>; <sup>1</sup>University of Rochester

### **56.423 Lesioning category-selective units in silico yields functionally specialized deficits**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion*

Jacob S. Prince<sup>1</sup> ([jacob.samuel.prince@gmail.com](mailto:jacob.samuel.prince@gmail.com)), George A. Alvarez<sup>1</sup>, Talia Konkle<sup>1</sup>; <sup>1</sup>Harvard University

### **56.424 Evaluating the Central-Peripheral Dichotomy in human visual cortex using anatomical and retinotopic data in Human Connectome Project**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion*

Li Zhaoping<sup>1</sup> ([li.zhaoping@tuebingen.mpg.de](mailto:li.zhaoping@tuebingen.mpg.de)); <sup>1</sup>University of Tuebingen, Max Planck Institute for Biological Cybernetics

### **56.425 Brain-optimized models reveal increase in few-shot concept learning accuracy across human visual cortex**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion*

Ghislain St-Yves<sup>1</sup>, Kendrick Kay<sup>1</sup>, Thomas Naselaris<sup>1</sup>; <sup>1</sup>University of Minnesota

## **Face Perception: Wholes, parts, configurations, and features**

### **56.426 Faces Are Not Processed Holistically in Ensemble Judgments**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion*

Isabel Gauthier<sup>1</sup> ([isabel.gauthier@vanderbilt.edu](mailto:isabel.gauthier@vanderbilt.edu)), Oakyoon Cha<sup>2</sup>; <sup>1</sup>Vanderbilt University, <sup>2</sup>Sungshin Women's University, Seoul, South Korea

### **56.427 Two faces of holistic face processing: Facilitation and interference underlying holistic processing paradigms**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion*

Haiyang Jin<sup>1</sup> ([haiyang.jin@nyu.edu](mailto:haiyang.jin@nyu.edu)), William G. Hayward<sup>2</sup>, Olivia S. Cheung<sup>1</sup>; <sup>1</sup>Department of Psychology, New York University Abu Dhabi, <sup>2</sup>Department of Applied Psychology, Lingnan University

### **56.428 A novel framework to study configural and holistic processing**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion*

Yuxuan Zeng<sup>1</sup> ([zeng.774@osu.edu](mailto:zeng.774@osu.edu)), Ren E Hentz<sup>1</sup>, David E Osher<sup>1</sup>; <sup>1</sup>The Ohio State University

### **56.429 Mouth-specific distortions: Evidence from prosopometamorphopsia for independent representations of individual facial features**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion*

Alexis Kidder<sup>1,2</sup>, Brad Duchaine<sup>1</sup>; <sup>1</sup>Dartmouth College, <sup>2</sup>NIMH

### **56.430 The Overestimation Effect in Gaze Perception Reduces with Distance**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion*

Gernot Horstmann<sup>1</sup> ([gernot.horstmann@uni-bielefeld.de](mailto:gernot.horstmann@uni-bielefeld.de)), Linda Linke<sup>1</sup>; <sup>1</sup>Bielefeld University

### **56.431 Does perceptual integration efficiency predict face identification skills?**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion*

Laurianne Côté<sup>1</sup>, Pierre-Louis Audette<sup>1</sup>, Caroline Blais<sup>1</sup>, Francis Gingras<sup>1</sup>, Justin Duncan<sup>1</sup>, Daniel Fiset<sup>1</sup>;  
<sup>1</sup>Université du Québec en Outaouais

### **56.432 Face recognition ability is correlated with strength of cortical tuning to high-level identity features in natural faces**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion*

Barbora Jurigova<sup>1</sup>, Susan Hao<sup>1</sup>, Alex Huth<sup>2</sup>, Brad Duchaine<sup>3</sup>, Ivan Alvarez<sup>1</sup>, Sonia Bishop<sup>1,4</sup>; <sup>1</sup>University of California Berkeley, <sup>2</sup>The University of Texas at Austin, <sup>3</sup>Dartmouth College, <sup>4</sup>Trinity College Dublin

### **56.433 The impact of eyeglasses on face identity perception**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion*

Hillary Nguyen<sup>1</sup>, Marvin Chun<sup>1</sup>, Yaoda Xu<sup>1</sup>; <sup>1</sup>Yale University

### **56.434 Colour information biases facial age estimation and reduces inter-observer variability**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion*

Jean hsieh<sup>1</sup> ([jeanyjhsieh@gmail.com](mailto:jeanyjhsieh@gmail.com)), Paul Boyce, Erin Goggard, Colin Clifford; <sup>1</sup>The University of New South Wales

### **56.435 Illusory Conjunction in Faces**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion*

Herrick Fung<sup>1</sup> ([herrickfung@gmail.com](mailto:herrickfung@gmail.com)), Janet H. Hsiao<sup>1</sup>, William G. Hayward<sup>2</sup>; <sup>1</sup>Department of Psychology, The University of Hong Kong, <sup>2</sup>Department of Applied Psychology, Lingnan University

### **56.436 Configural selectivity for faces in IT cortex is experience-dependent**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion*

Akshay V Jagadeesh<sup>1</sup>, Margaret S Livingstone<sup>1</sup>; <sup>1</sup>Harvard Medical School

### **56.438 Face information used to classify identity depends on emotional expression and vice-versa**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion*

Emily Martin<sup>1</sup> ([emart459@fiu.edu](mailto:emart459@fiu.edu)), Jason Hays<sup>1</sup>, Fabian Soto<sup>1</sup>; <sup>1</sup>Florida International University

### **56.439 Does the face say it all? Examining face and body integration in whole-person perception.**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion*

Katelyn Forner<sup>1</sup> ([katelynforner13@gmail.com](mailto:katelynforner13@gmail.com)), Isabella Schopper<sup>1</sup>, Amy vanWell<sup>1</sup>, James Tanaka<sup>1</sup>; <sup>1</sup>University of Victoria

## **Face Perception: Development and disorders**

### **56.440 Can face recognition/recollection in developmental prosopagnosia really be improved? Evidence from a repetition-lag training paradigm**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion*

Leah Kirsch<sup>1,2</sup>, Regan Fry<sup>1,2</sup>, Mieke Verfaellie<sup>3,4</sup>, Nicole Anderson<sup>5</sup>, Joseph DeGutis<sup>1,2</sup>; <sup>1</sup>Department of Psychiatry, Harvard Medical School, Boston MA, <sup>2</sup>Boston Attention and Learning Lab, Boston VA Healthcare System, Boston, MA, <sup>3</sup>Memory Disorders Research Center, Boston VA Healthcare Systems, Boston MA, <sup>4</sup>Department of Psychiatry, Boston University School of Medicine, Boston MA, <sup>5</sup>Departments of Psychology and Psychiatry, University of Toronto, ON, Canada

### **56.441 Accounting for speed-accuracy trade-offs in developmental prosopagnosia**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion*

Judith Lowes<sup>1</sup> ([judith.lowes@stir.ac.uk](mailto:judith.lowes@stir.ac.uk)), Peter J.B. Hancock<sup>1</sup>, Anna K. Bobak<sup>1</sup>; <sup>1</sup>University of Stirling, Stirling, United Kingdom

### **56.442 Fine-grained face race processing in prosopagnosia**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion*

Pauline Schaller<sup>1</sup> ([pauline.schaller@unifr.ch](mailto:pauline.schaller@unifr.ch)), Peter de Lissa<sup>1</sup>, Justin Duncan<sup>2</sup>, Anne-Raphaëlle Richoz<sup>1</sup>, Roberto Caldara<sup>1</sup>; <sup>1</sup>University of Fribourg, <sup>2</sup>Université du Québec en Outaouais

### **56.443 Putting Memory back into Face Recognition: Aspects of Face Recollection Contribute to Deficits in Developmental Prosopagnosia**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion*

Tanvi Palsamudram<sup>1,2</sup> ([tanvi.palsamudram@gmail.com](mailto:tanvi.palsamudram@gmail.com)), Bar Yosef, Alison Campbell<sup>1,2</sup>, Regan Fry<sup>1,2</sup>, Mieke Verfaellie<sup>3,4</sup>, Nicole Anderson<sup>5</sup>, Joseph DeGutis<sup>1,2</sup>; <sup>1</sup>Department of Psychiatry, Harvard Medical School, Boston MA, <sup>2</sup>Boston Attention and Learning Laboratory, Boston VA Healthcare Systems, Boston MA, <sup>3</sup>Memory Disorders Research Center, Boston VA Healthcare Systems, Boston MA, <sup>4</sup>Department of Psychiatry, Boston University School of Medicine, Boston MA, <sup>5</sup>Departments of Psychology and Psychiatry, University of Toronto, ON, Canada

### **56.444 Quantifying dynamic facial expression recognition thresholds in prosopagnosia**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion*

Fanny Poncet<sup>1</sup>, Lisa Stacchi<sup>1</sup>, Anne-Raphaëlle Richoz<sup>1</sup>, Roberto Caldara<sup>1</sup>; <sup>1</sup>University of Fribourg

### **56.445 Prosopagnosia elicits atypical fixation patterns during dynamic facial expression recognition**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion*

Lisa Stacchi<sup>1</sup>, Anne-Raphaëlle Richoz<sup>1</sup>, Nayla Sokhn<sup>1</sup>, Roberto Caldara<sup>1</sup>; <sup>1</sup>University of Fribourg

### **56.446 Semantic encoding improves face recognition in prosopagnosia**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion*

Yuval Navon<sup>1</sup>, Linoy Schwartz<sup>2</sup>, Yiyuan Zhang<sup>3</sup>, Brad Duchaine<sup>3</sup>, Galit Yovel<sup>1</sup>; <sup>1</sup>Tel Aviv University, <sup>2</sup>Reichman University, <sup>3</sup>Dartmouth College

### **56.447 Exploring facial expression recognition in Parkinson's**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion*

Maille Gracey<sup>1</sup> ([mfg056@student.bham.ac.uk](mailto:mfg056@student.bham.ac.uk)), Connor Keating<sup>1</sup>, Sophie Sowden<sup>1</sup>, Jennifer Cook<sup>1</sup>; <sup>1</sup>University of Birmingham

### **56.448 Pose dependent face recognition in autism spectrum disorder**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion*

Todd Kamensek<sup>1,4</sup> ([todd.kamensek@ubc.ca](mailto:todd.kamensek@ubc.ca)), Anastasia Stolzenberg<sup>1,2</sup>, Grace Iarocci<sup>3</sup>, Ipek Oruc<sup>1,4</sup>; <sup>1</sup>Neuroscience, University of British Columbia, <sup>2</sup>Department of Psychology, University of British Columbia, <sup>3</sup>Department of Psychology, Simon Fraser University, <sup>4</sup>Department of Ophthalmology and Visual Sciences, University of British Columbia

### **56.449 Leveraging computational and animal models of vision to probe atypical emotion recognition in autism**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion*

Hamidreza Ramezanpour<sup>1</sup> ([hamidram@yorku.ca](mailto:hamidram@yorku.ca)), Kohitij Kar<sup>1</sup>; <sup>1</sup>Department of Biology, Centre for Vision Research, York University, Toronto, Canada

### **56.450 Facial Emotion Recognition in People with Differing Levels of Eating Disorder Symptoms**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion*

Ilya Nudnou<sup>1</sup> ([ilya.nudnou@ndsu.edu](mailto:ilya.nudnou@ndsu.edu)), Katherine Duggan<sup>1</sup>, Lauren Schaefer<sup>2</sup>, Benjamin Balas<sup>1</sup>; <sup>1</sup>North Dakota State University, <sup>2</sup>Sanford Center for Biobehavioral Research

### **56.451 Anxious youth and adults share threat-biased interpretations of visual and linguistic ambiguity**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion*

Delaney McDonagh<sup>1</sup>, Michelle Rozenman<sup>1</sup>, Timothy Sweeny<sup>1</sup>, Emily Jones<sup>1</sup>, Anni Subar<sup>1</sup>; <sup>1</sup>University of Denver

## **Face Perception: Social cognition**

### **56.452 A NETWORK OF REGIONS IN THE HUMAN BRAIN INVOLVED IN PROCESSING FAMILIARITY**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion*

Kira Noad<sup>1</sup> ([kira.noad@york.ac.uk](mailto:kira.noad@york.ac.uk)), David Watson<sup>1</sup>, Timothy Andrews<sup>1</sup>; <sup>1</sup>University of York

### **56.453 Electrophysiological evidence that own-race faces are recognized more automatically**



*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion*

Chloé Galinier<sup>1</sup> ([galc13@uqo.ca](mailto:galc13@uqo.ca)), Justin Duncan<sup>1</sup>, Caroline Blais<sup>1</sup>, Daniel Fiset<sup>1</sup>; <sup>1</sup>Université du Québec en Outaouais

### **56.454 Both Purely Visual and Simulation-based Models Uniquely Explain Human Social Interaction Judgements**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion*

Manasi Malik<sup>1</sup> ([mmalik16@jhu.edu](mailto:mmalik16@jhu.edu)), Leyla Isik<sup>1</sup>; <sup>1</sup>Johns Hopkins University

### **56.455 General architectural and learning constraints produce visual features sensitive to facing dyads**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion*

Daniel Janini<sup>1</sup> ([janinidp@gmail.com](mailto:janinidp@gmail.com)), Talia Konkle; <sup>1</sup>Harvard University

### **56.456 Does face recognition correlate with narcissism? A replication.**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion*

Gabriella Romero-Ayala<sup>1</sup>, Zane Kingsbury<sup>2</sup>, Marin Foss<sup>3</sup>, Kellie Schmidt<sup>4</sup>, Sherryse Corrow<sup>5</sup>; <sup>1</sup>Bethel University

### **56.457 Religious labels and food preferences, but not country of origin, support opposing aftereffects on the basis of religion**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion*

Maheen Shakil<sup>1</sup> ([shakilm@mcmaster.ca](mailto:shakilm@mcmaster.ca)), M.D. Rutherford<sup>1</sup>; <sup>1</sup>McMaster University

### **56.458 Inferential tracking reveals context is more informative than faces in judgments of trustworthiness.**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion*

Yifan Fang<sup>1</sup> ([yfang2024@berkeley.edu](mailto:yfang2024@berkeley.edu)), Jefferson Ortega<sup>1</sup>, Necdet Gürkan<sup>2</sup>, Jordan W. Suchow<sup>2</sup>, David Whitney<sup>1</sup>; <sup>1</sup>University of California, Berkeley, <sup>2</sup>Stevens Institute of Technology

### **56.459 Lateralization of dynamic social interaction perception**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion*

Hannah Small<sup>1</sup> ([hsmall2@jhu.edu](mailto:hsmall2@jhu.edu)), Leyla Isik<sup>1</sup>; <sup>1</sup>Johns Hopkins University

### **56.460 New task - new results? How the area of direct gaze is influenced by the method of measurement**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion*

Linda Linke<sup>1</sup>, Gernot Horstmann<sup>1</sup>; <sup>1</sup>Bielefeld University

### **56.461 How we can use the eyes to understand human interaction**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion*

Wee Kiat Lau<sup>1</sup> ([wee.lau@uni-ulm.de](mailto:wee.lau@uni-ulm.de)), Marian Sauter<sup>2</sup>, Lisa Valentina Eberhardt<sup>3</sup>, Anke Huckauf<sup>4</sup>; <sup>1</sup>Ulm University

### **56.462 Viewing images with closed eyes diminishes implied social presence**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion*

Oliver Jacobs<sup>1</sup> ([ojacobs@psych.ubc.ca](mailto:ojacobs@psych.ubc.ca)), Farid Pazhoohi<sup>1</sup>, Alan Kingstone<sup>1</sup>; <sup>1</sup>University of British Columbia

### **56.463 Effect of Sclera Size on Social Judgements: A Potential Support for the Cooperative Eye Hypothesis**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion*

Mathias Boyer-Brosseau<sup>1</sup> ([mathias.boyer-brosseau@uqtr.ca](mailto:mathias.boyer-brosseau@uqtr.ca)), Simon Rigoulot<sup>2</sup>, Sebastien Hetu<sup>3</sup>; <sup>1</sup>Université du Québec de Trois-Rivières (UQTR), <sup>2</sup>Université de Montreal (UdeM)

### **56.464 Positive Valence Acquisition of Non-social Stimuli Associated with Low Cognitive Effort**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion*

Lily R. Reck<sup>1</sup> ([lilyrosereck@gwu.edu](mailto:lilyrosereck@gwu.edu)), Rebeka C. Almasi<sup>1</sup>, Jini Tae<sup>2</sup>, Yoonhyoung Lee<sup>3</sup>, Myeong-Ho Sohn<sup>1</sup>; <sup>1</sup>George Washington University, <sup>2</sup>Gwangju Institute of Science and Technology, <sup>3</sup>Yeungnam University

### **56.465 Dyad arrangement affects perceived emotional intensity**

*Tuesday, May 23, 2023, 2:45 – 6:45 pm, Pavilion*

Katie L.H. Gray<sup>1</sup> ([k.l.h.gray@reading.ac.uk](mailto:k.l.h.gray@reading.ac.uk)), Zoe St Louis-King<sup>1</sup>, Richard Cook<sup>2</sup>, Mahsa Barzy<sup>1</sup>; <sup>1</sup>University of Reading, <sup>2</sup>Birkbeck, University of London

## **Wednesday Morning Posters in Banyan Breezeway**

### **Temporal Processing: Neural mechanisms and models**

#### **63.301 Perceptual sensitivity depends on the contrast of preceding and following stimuli across hundreds of milliseconds**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Michael Epstein<sup>1</sup> ([mlepstein88@gmail.com](mailto:mlepstein88@gmail.com)), Rachel Denison<sup>1</sup>; <sup>1</sup>Boston University

#### **63.302 Aperiodic and Periodic EEG predict performance in a double-flash fusion task**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Michele Deodato<sup>1</sup> ([md5050@nyu.edu](mailto:md5050@nyu.edu)), David Melcher<sup>1</sup>; <sup>1</sup>New York University Abu Dhabi

#### **63.303 Relationship between steady-state responses in simultaneously acquired LFP and EEG**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Dixit Sharma<sup>1</sup> ([ds1663@rutgers.edu](mailto:ds1663@rutgers.edu)), Bart Krekelberg<sup>1</sup>; <sup>1</sup>Rutgers University - Newark

#### **63.304 Gain Changes in Response to Full Field Flicker**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Bart Krekelberg<sup>1</sup> ([bart@vision.rutgers.edu](mailto:bart@vision.rutgers.edu)), Alexander Schielke<sup>2</sup>; <sup>1</sup>Rutgers University - Newark

#### **63.305 Event probabilities tend to scale inversely with neural measures of prediction error, but positively with measures of time perception**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Blake Saurels<sup>1</sup> ([b.saurels@uq.edu.au](mailto:b.saurels@uq.edu.au)), Derek Arnold<sup>1</sup>; <sup>1</sup>Perception Lab, The University of Queensland

### **63.306 Cortical quantity representations of visual numerosity and timing overlap increasingly but remain distinct**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Evi Hendriks<sup>1</sup> ([e.h.hendriks@uu.nl](mailto:e.h.hendriks@uu.nl)), Jacob M. Paul<sup>2</sup>, Martijn van Ackooij<sup>1</sup>, Nathan van der Stoep<sup>1</sup>, Ben M. Harvey<sup>1</sup>; <sup>1</sup>Utrecht University, <sup>2</sup>University of Melbourne

### **63.307 An experimental and theoretical study of the critical fusion frequency as a function of stimulus duty ratio**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Kotaro Oikawa<sup>1</sup>, Ruggero Micheletto<sup>1</sup>; <sup>1</sup>Yokohama City University

### **63.308 Event-related Potentials Associated with Inhibitory Processes of Forward Masking**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Hulusi Kafaligonul<sup>1,2</sup> ([hulusi@bilkent.edu.tr](mailto:hulusi@bilkent.edu.tr)), Afife Turker<sup>1,2</sup>; <sup>1</sup>Interdisciplinary Neuroscience Program, Aysel Sabuncu Brain Research Center, Bilkent University, <sup>2</sup>National Magnetic Resonance Research Center, Bilkent University

### **63.309 Seeing fast and slow: systematic state and trait variations in visual temporal acuity**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

David Melcher<sup>1</sup> ([david.melcher@nyu.edu](mailto:david.melcher@nyu.edu)), Gaia Lapomarda<sup>1</sup>, Michele Deodato<sup>1</sup>; <sup>1</sup>New York University Abu Dhabi

### **63.310 Evidence for a second rod pathway in the human retina with a cone-like spectral sensitivity**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Christopher Tyler<sup>1</sup> ([cwt@ski.org](mailto:cwt@ski.org)), Russell Hamer<sup>2</sup>, Michael Liang<sup>1</sup>, Zhangziyi Zhou<sup>1</sup>, Lora Likova<sup>1</sup>; <sup>1</sup>Smith-Kettlewell Eye Research Institute, <sup>2</sup>Florida Atlantic University

### **63.311 Is temporal crowding mediated by averaging across time?**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Ilanit Hochmitz<sup>1</sup> ([ilanit57@gmail.com](mailto:ilanit57@gmail.com)), Yaffa Yeshurun; <sup>1</sup>University of Haifa

### **63.312 Temporal sensitivity in the central fovea**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Ruitao Lin<sup>1,2</sup> ([rlin18@ur.rochester.edu](mailto:rlin18@ur.rochester.edu)), Alessandro Benedetto<sup>1,2</sup>, Janis Intoy<sup>1,2</sup>, Benjamin Moon<sup>2,3</sup>, Ashley M. Clark<sup>1,2</sup>, Samantha K. Jenks<sup>1,2</sup>, Sanjana Kapisthalam<sup>1,2</sup>, Martina Poletti<sup>1,2</sup>, Michele Rucci<sup>1,2</sup>; <sup>1</sup>Department of Brain and Cognitive Sciences, University of Rochester, NY, USA, <sup>2</sup>Center for Visual Science, University of Rochester, NY, USA, <sup>3</sup>The Institute of Optics, University of Rochester, NY, USA

### **63.313 Segmenting the magnocellular regions in the human lateral and medial geniculate nuclei using quantitative MRI**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Irem Yildirim<sup>1</sup> ([irem.yldrm8@gmail.com](mailto:irem.yldrm8@gmail.com)), Khan Hekmatyar<sup>1</sup>, Keith A Schneider<sup>1</sup>; <sup>1</sup>University of Delaware

## Object Recognition: Features and parts

### 63.314 Temporal-spatial configuration of musical notation: Distinguishing visual and conceptual influences on expert and novice performance

Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Niels J. Verosky<sup>1</sup> ([niels.verosky@nyu.edu](mailto:niels.verosky@nyu.edu)), Olivia S. Cheung; <sup>1</sup>New York University Abu Dhabi

### 63.315 Perception of retinal images: Can artificial intelligence help us discover new diagnostic features?

Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Lei Yuan<sup>1</sup> ([cyuan26@student.ubc.ca](mailto:cyuan26@student.ubc.ca)), Gulcenur Ozturan<sup>1</sup>, Ipek Oruc<sup>1</sup>; <sup>1</sup>University of British Columbia

### 63.316 Revisiting the animacy, size, and curvature organization of human visual cortex

Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Laura M. Stoinski<sup>1</sup>, Oliver Contier<sup>1,2</sup>, Talia Konkle<sup>3</sup>, Martin N. Hebart<sup>4</sup>; <sup>1</sup>MPI Human Cognitive & Brain Sciences, Leipzig, Germany, <sup>2</sup>Max Planck School of Cognition, Max Planck Institute for Human Cognitive & Brain Sciences, Leipzig, Germany, <sup>3</sup>Department of Psychology & Center for Brain Science, Harvard University, Cambridge, Massachusetts, <sup>4</sup>Department of Medicine, Justus Liebig University, Giessen, Germany

### 63.317 Different tasks performed on same objects result in functionally distinct activation of LOTC and IPS

Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Arnab Biswas<sup>1</sup> ([arnab@nevada.unr.edu](mailto:arnab@nevada.unr.edu)), Mark D. Lescroart; <sup>1</sup>University of Nevada, Reno

### 63.318 Functional contributions of the dorsal pathway to shape perception: Evidence from intracranial recording

Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Max Kramer<sup>1</sup> ([mkramer@mkramerpsych.com](mailto:mkramer@mkramerpsych.com)), Vladislav Ayzenberg<sup>1</sup>, Zhengjia Wang<sup>2</sup>, Christina Patterson<sup>3</sup>, Marlene Behrmann<sup>1,4</sup>; <sup>1</sup>Department of Psychology, Carnegie Mellon University, <sup>2</sup>Department of Neurosurgery, Perelman School of Medicine, University of Pennsylvania, <sup>3</sup>Department of Pediatrics, University of Pittsburgh, <sup>4</sup>Department of Ophthalmology, University of Pittsburgh

### 63.319 The impact of culture on the processing of spatial frequencies during the recognition of homogenous objects

Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Alexandre Cousineau<sup>1</sup> ([alex.cousineau@outlook.com](mailto:alex.cousineau@outlook.com)), Francis Gingras<sup>1,2</sup>, Daniel Fiset<sup>1</sup>, Caroline Blais<sup>1</sup>; <sup>1</sup>Université du Québec en Outaouais, <sup>2</sup>Université du Québec à Montréal

### 63.320 The Signal and the Noise: Optimizing the Reverse Correlation Technique via Noise Selection

Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway

Gennadiy Gurariy<sup>1</sup> ([ggurariy@mcw.edu](mailto:ggurariy@mcw.edu)), Ethan Duwell<sup>1</sup>, Adam Greenberg<sup>1</sup>; <sup>1</sup>Medical College of Wisconsin

### **63.321 The spatiotemporal neural dynamics of Braille letter representations in individuals with congenital blindness**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Marleen Haupt<sup>1</sup>, Monika Graumann<sup>1</sup>, Santani Teng<sup>2</sup>, Radoslaw Cichy<sup>1</sup>; <sup>1</sup>Freie Universität Berlin, Germany, <sup>2</sup>Smith-Kettlewell Eye Research Institute, San Francisco, USA

### **63.322 Uncovering the hidden computations of deep neural networks by tracing the trajectory manifold from images to feature activations**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Christopher Hamblin<sup>1</sup> ([chrishamblin@fas.harvard.edu](mailto:chrishamblin@fas.harvard.edu)), Talia Konkle<sup>1</sup>, George Alvarez<sup>1</sup>; <sup>1</sup>Harvard University

### **63.323 Unsupervised feature selection methods for modeling human similarity judgments with deep neural networks**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Nhut Truong<sup>1</sup> ([leminhnhut.truong@unitn.it](mailto:leminhnhut.truong@unitn.it)), Anna Bavaresco<sup>1</sup>, Uri Hasson<sup>1</sup>; <sup>1</sup>Center for Mind/Brain Sciences (CIMeC), University of Trento

### **63.324 Which fragments support object recognition best?**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Elsa Scialom<sup>1</sup> ([elsa.scialom@epfl.ch](mailto:elsa.scialom@epfl.ch)), Udo A. Ernst<sup>2</sup>, David Rotermund<sup>2</sup>, Michael H. Herzog<sup>1</sup>; <sup>1</sup>Ecole Polytechnique Fédérale de Lausanne (EPFL), <sup>2</sup>University of Bremen, Bremen, Germany

### **63.325 Delayed foveal noise affects performance in a vernier offset discrimination task**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Martina Morea<sup>1</sup> ([martina.morea@epfl.ch](mailto:martina.morea@epfl.ch)), Roberta Cessa<sup>2</sup>, Michael Herzog<sup>1</sup>, Marco Bertamini<sup>3</sup>; <sup>1</sup>Laboratory of Psychophysics, Brain Mind Institute, École Polytechnique Fédérale de Lausanne (EPFL), Lausanne, Switzerland., <sup>2</sup>Department of General Psychology, University of Padova, Padova, Italy., <sup>3</sup>Department of Psychology, University of Liverpool, Liverpool, UK.

### **63.326 Effect of Radial Frequency and Amplitude on Target Detection**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Samuel Smithers<sup>1</sup> ([s.smithers@northeastern.edu](mailto:s.smithers@northeastern.edu)), Wei Hau Lew<sup>2</sup>, Yulong Shao<sup>1</sup>, Daniel Coates<sup>2</sup>, Peter Bex<sup>1</sup>; <sup>1</sup>Northeastern University, <sup>2</sup>University of Houston

## **Visual Memory: Capacity, encoding, retrieval**

### **63.327 Image memorability modulates image recognition, but not image localization in space and time**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Nathan Trinkl<sup>1</sup>, Jeremy M. Wolfe<sup>1,2</sup>; <sup>1</sup>Brigham and Women's Hospital, <sup>2</sup>Harvard Medical School

### **63.328 Modestly related memories for when and where an object was seen in a Massive Memory paradigm.**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Jeremy Wolfe<sup>1,2</sup> ([jwolfe@bwh.harvard.edu](mailto:jwolfe@bwh.harvard.edu)), Claire Wang<sup>3</sup>, Nathan Trinkl<sup>1</sup>, Wanyi Lyu<sup>4</sup>; <sup>1</sup>Brigham and Womens Hospital, <sup>2</sup>Harvard Medical School, <sup>3</sup>Phillips Academy, Andover, MA, <sup>4</sup>York U, Toronto

### **63.329 No Icon in "Iconic" Memory: Short Retention Intervals Benefit Simple Visual Features But Not Complex Objects**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Mary Catington<sup>1</sup> ([mfc120@msstate.edu](mailto:mfc120@msstate.edu)), Michael Pratte<sup>1</sup>; <sup>1</sup>Mississippi State University

### **63.330 Confidence in reality monitoring judgments.**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Saurabh Ranjan<sup>1</sup> ([saurabh.ranjan@ufl.edu](mailto:saurabh.ranjan@ufl.edu)), Jessica Baltes<sup>1</sup>, Adyssa Roh<sup>1</sup>, Brian Odegaard<sup>1</sup>; <sup>1</sup>University of Florida

### **63.331 Global Mean Position Perception of Multiple Spatially-Separated Ensembles**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Yang Wang<sup>1</sup> ([wangy0802@hotmail.com](mailto:wangy0802@hotmail.com)), Edward Vul<sup>1</sup>, Timothy Brady<sup>1</sup>; <sup>1</sup>University of California, San Diego

### **63.332 People remember face pareidolia more than human face images during naturalistic encoding**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Olga Kreichman<sup>1,2</sup> ([oplaksin88@gmail.com](mailto:oplaksin88@gmail.com)), Limor Brook<sup>1,2</sup>, Susan Wardle<sup>3</sup>, Sharon Gilaie-Dotan<sup>1,2,4</sup>; <sup>1</sup>School of Optometry and Vision Science, Bar Ilan University, Israel, <sup>2</sup>The Gonda Multidisciplinary Brain Research Center, Bar Ilan University, Israel, <sup>3</sup>National Institute of Mental Health, <sup>4</sup>UCL Institute of Cognitive Neuroscience, London, UK

### **63.333 Symbol superiority: Why \$ is better remembered than 'dollar'**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Brady Roberts<sup>1</sup>, Colin MacLeod<sup>1</sup>, Myra Fernandes<sup>1</sup>; <sup>1</sup>University of Waterloo

### **63.334 Color priming facilitates cued location recall in a visuospatial short-term memory partial report paradigm**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Tanner Lumpkin<sup>1</sup> ([tllump9771@ung.edu](mailto:tllump9771@ung.edu)), Courtney Nutt<sup>2</sup>, Patsy Folds<sup>3</sup>, Ralph Hale<sup>4</sup>; <sup>1</sup>University of North Georgia

### **63.335 Exploring the impact of a constructive encoding task on visual recognition memory**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

William P. McCarthy<sup>1</sup>, Judith E. Fan<sup>2</sup>; <sup>1</sup>UC San Diego, Department of Cognitive Science, <sup>2</sup>UC San Diego, Department of Psychology

### **63.336 Mixed Graph Designs Do Not Improve Visual Memory**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Madeline F. Awad<sup>1</sup> ([madelineawad2025@u.northwestern.edu](mailto:madelineawad2025@u.northwestern.edu)), Kylie Lin<sup>1</sup>, Steven L. Franconeri<sup>1</sup>; <sup>1</sup>Northwestern University

### **63.337 Quantifying the Temporal Dynamics of Memorability Across the Creation of Art**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Trent M. Davis<sup>1</sup> ([trentdavis@uchicago.edu](mailto:trentdavis@uchicago.edu)), Wilma A. Bainbridge<sup>1</sup>; <sup>1</sup>University of Chicago

### **63.338 Visual similarity structure a priori predicts memory errors for novel high-dimensional face stimuli**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Timothy Brady<sup>1</sup> ([timothy.brady@gmail.com](mailto:timothy.brady@gmail.com)), Maria Robinson<sup>1</sup>; <sup>1</sup>University of California, San Diego

### **63.339 When is it helpful to forget? Comparing the effects of forgetting on visual and auditory perceptual decisions**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Malinda McPherson<sup>1</sup> ([mjmcpherson@ucsd.edu](mailto:mjmcpherson@ucsd.edu)), Timothy Brady; <sup>1</sup>University of California, San Diego

## **Spatial Vision: Texture**

### **63.340 The effects of symmetry on visual ensemble perception**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Jaeeun LEE<sup>1</sup> ([jaeeun@pusan.ac.kr](mailto:jaeeun@pusan.ac.kr)), Sung Jun Joo<sup>1</sup>; <sup>1</sup>Pusan National University

### **63.341 Texture difference cues in figure-ground separation**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Jonathan Victor<sup>1</sup> ([jdvicto@med.cornell.edu](mailto:jdvicto@med.cornell.edu)), Mary Conte<sup>1</sup>; <sup>1</sup>Weill Cornell Medical College

### **63.342 Second-order boundaries segment more easily when density-defined rather than feature-defined**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Christopher DiMattina<sup>1</sup> ([cdimattina@fgcu.edu](mailto:cdimattina@fgcu.edu)); <sup>1</sup>Department of Psychology, Florida Gulf Coast University

### **63.343 Contextual interactions between orientation- and contrast-modulated textures in the tilt induction**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Elena Gheorghiu<sup>1</sup> ([elena.gheorghiu@stir.ac.uk](mailto:elena.gheorghiu@stir.ac.uk)), Rui Tang<sup>2</sup>, Frederick A.A. Kingdom<sup>2</sup>; <sup>1</sup>University of Stirling, United Kingdom, <sup>2</sup>McGill University, Canada

### **63.344 Surround induction with orientation modulated textures**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Amenabhwon Natasha Thomas<sup>1</sup>, Elena Gheorghiu<sup>2</sup>, Selin Eriz<sup>1</sup>, Frederick Kingdom<sup>1</sup>; <sup>1</sup>McGill University, <sup>2</sup>University of Stirling

### **63.345 When Summary Statistics Clash: Competing summary statistics modulate the attentional prioritization of ensemble representations**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Kristina Knox<sup>1</sup> ([kristina.knox@mail.utoronto.ca](mailto:kristina.knox@mail.utoronto.ca)), Jay Pratt<sup>1</sup>, Jonathan S. Cant<sup>2</sup>; <sup>1</sup>University of Toronto, <sup>2</sup>University of Toronto Scarborough

### **63.346 The cost of forming statistical summary representations across multiple spatial scales**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Sandarsh Pandey<sup>1</sup> ([sandarshpand@umass.edu](mailto:sandarshpand@umass.edu)), Kyle Cave<sup>1</sup>; <sup>1</sup>UMass Amherst

## **Visual Search: Attention**

### **63.347 Super-additive associative learning benefit for repeated task-relevant and task-irrelevant elements in visual search**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Emma M. Siritzky<sup>1</sup> ([esiritzky@gwu.edu](mailto:esiritzky@gwu.edu)), Samoni Nag<sup>1</sup>, Chloe Callahan-Flintoft<sup>2</sup>, Stephen R. Mitroff<sup>1</sup>, Dwight J. Kravitz<sup>1</sup>; <sup>1</sup>The George Washington University, Department of Psychological and Brain Sciences, <sup>2</sup>U.S. Army Research Laboratory

### **63.348 Activation of multiple attentional templates in conjunction search**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Ziyi Wang<sup>1</sup> ([ziyi.wang5@durham.ac.uk](mailto:ziyi.wang5@durham.ac.uk)), Martin Eimer<sup>2</sup>, Anna Grubert<sup>1</sup>; <sup>1</sup>Durham University, <sup>2</sup>Birkbeck, University of London

### **63.349 Does visual distinctiveness from an unexpected feature dimension facilitate search?**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Zoe (Jing) Xu<sup>1</sup> ([jingxu9@illinois.edu](mailto:jingxu9@illinois.edu)), Alejandro Lleras<sup>1</sup>, John E. Hummel<sup>1</sup>, Simona Buetti<sup>1</sup>; <sup>1</sup>University of Illinois, Urbana Champaign

### **63.350 Using regularity-based temporal predictions to shift our attentional template across time during multiple-target dynamic visual search**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Gwenllian C. Williams<sup>1,2,3</sup> ([gwenllian.williams@psy.ox.ac.uk](mailto:gwenllian.williams@psy.ox.ac.uk)), Sage E. P. Boettcher<sup>1,2,3</sup>, Anna C. Nobre<sup>1,2,3</sup>; <sup>1</sup>Department of Experimental Psychology, University of Oxford, <sup>2</sup>Wellcome Centre for Integrative Neuroimaging, University of Oxford, <sup>3</sup>Oxford Centre for Human Brain Activity, University of Oxford

### **63.351 Shifting target representations away from distractor features is task-adaptive**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Xinger Yu<sup>1</sup> ([xeyu@ucdavis.edu](mailto:xeyu@ucdavis.edu)), Raisa Rahim<sup>1</sup>, Joy Geng<sup>1,2</sup>; <sup>1</sup>Center for Mind and Brain, University of California, Davis, <sup>2</sup>Department of Psychology, University of California, Davis

### **63.352 Contextual cueing effects of various targets in the same context**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Jeunghwan Choi<sup>1</sup> ([abcdef0518@naver.com](mailto:abcdef0518@naver.com)), Sang Chul Chong<sup>1,2</sup>; <sup>1</sup>Graduate Program in Cognitive Science, Yonsei University, <sup>2</sup>Department of Psychology, Yonsei University

### **63.353 Enhancement and suppression of category exemplars**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*



Y. Isabella Lim<sup>1</sup> (isabella.lim@mail.utoronto.ca), Jay Pratt<sup>1</sup>; <sup>1</sup>University of Toronto

### **63.354 Joint contributions of instruction and preview on visual search strategy**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Tianyu Zhang<sup>1</sup> (zhang.11476@osu.edu), Andrew B. Leber<sup>1</sup>; <sup>1</sup>The Ohio State University

### **63.355 The limitations of categorical distractor suppression**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Jessica N. Goetz<sup>1</sup> (jngoetz@knights.ucf.edu), Mark B. Neider<sup>1</sup>; <sup>1</sup>University of Central Florida

### **63.356 To Feedback or Not to Feedback? That is the Question When Attempting to Improve the Low Prevalence Effect Using Probes Trials**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Andrew Rodriguez<sup>1</sup> (rodri818@msu.edu), Derrek T. Montalvo<sup>1</sup>, Mark W. Becker<sup>1</sup>; <sup>1</sup>Michigan State University

### **63.357 Attentional differences predict ensemble coding and are moderated by probe effects**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Laramie Starling<sup>1</sup> (lrs@usf.edu), Chad Dubé<sup>1</sup>; <sup>1</sup>University of South Florida

### **63.358 Statistical Learning and Attentional Priority**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Aidai Golan<sup>1</sup>, Dominique Lamy<sup>2</sup>; <sup>1</sup>Tel Aviv University

## **Visual Search: Strategies, efficiencies**

### **63.359 Not so rapid: Dominant-looking faces elicit deliberate but not efficient search**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Shujuan Ye<sup>1</sup> (yeshj5@mail2.sysu.edu.cn), Ke Wu<sup>1</sup>, Xiayun Lin<sup>1</sup>, Xiaowei Ding<sup>1</sup>; <sup>1</sup>Sun Yat-sen University

### **63.360 Search efficiency scales with semantic relatedness in audiovisual contexts**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Kira Wegner-Clemens<sup>1</sup>, George Malcolm<sup>2</sup>, Sarah Shomstein<sup>1</sup>; <sup>1</sup>George Washington University, <sup>2</sup>University of East Anglia

### **63.361 Visual detection of threat and rapid decisions to "shoot": Can mindfulness-based meditation practices improve signal detection accuracy and reduce implicit racial bias?**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

David Peterzell<sup>1</sup> (davidpeterzell@mac.com); <sup>1</sup>Fielding Graduate University, <sup>2</sup>National University (JFK)

### **63.362 Modeling Observer Search Termination in a Subsequent Search Misses (SSM) Experimental Framework: The Role of Experience.**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Nelson Roque<sup>1</sup> ([nelson.roque@ucf.edu](mailto:nelson.roque@ucf.edu)), Stephen Adamo<sup>2</sup>; <sup>1</sup>University of Central Florida

### **63.363 The effects of blur adaptation on visual search performance**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Idris Shareef<sup>1</sup> ([ishareef@unr.edu](mailto:ishareef@unr.edu)), Nasif Zaman<sup>2</sup>, Alireza Tavakkoli<sup>2</sup>, Fang Jiang<sup>1</sup>; <sup>1</sup>Department of Psychology, University of Nevada, Reno, USA, <sup>2</sup>Department of Computer Science and Engineering, University of Nevada, Reno, USA

### **63.364 The FORAGEKID Game: Using Hybrid Foraging to Study Executive Functions and Search Strategies During Development**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Beatriz Gil-Gómez de Liaño<sup>1</sup> ([bgil.gomezdelianno@uam.es](mailto:bgil.gomezdelianno@uam.es)), Jeremy M Wolfe<sup>2</sup>; <sup>1</sup>Universidad Autónoma de Madrid, <sup>2</sup>BWH-Harvard Medical School

### **63.365 Close, but not a T: Feedback, not similarity search, reduces the low-prevalence effect**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Greer Gillies<sup>1</sup> ([greer.gillies@mail.utoronto.ca](mailto:greer.gillies@mail.utoronto.ca)), Benjamin Wolfe<sup>2</sup>, Anna Kosovicheva; <sup>1</sup>University of Toronto, <sup>2</sup>University of Toronto, Mississauga

### **63.366 Emotion recognition, not attentional capture, drives visual search asymmetries to emotional expressions**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Sjoerd Stuit<sup>1</sup> ([s.m.stuit@uu.nl](mailto:s.m.stuit@uu.nl)), Alejandra Pardo Sanchez<sup>2</sup>, David Terburg<sup>1</sup>; <sup>1</sup>Utrecht University, <sup>2</sup>University College Utrecht

### **63.367 Multidimensional templates: Explicit goals unlock implicit spatial statistical learning**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Nancy Carlisle<sup>1</sup> ([nancy.carlisle@gmail.com](mailto:nancy.carlisle@gmail.com)), Ziyao Zhang<sup>2</sup>; <sup>1</sup>Lehigh University, <sup>2</sup>UT Austin

### **63.368 Individual differences in patch leaving strategy in visual foraging tasks**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Walden Li<sup>1</sup> ([li.6942@osu.edu](mailto:li.6942@osu.edu)), Mackenzie Siesel<sup>1</sup>, Andrew Leber<sup>1</sup>; <sup>1</sup>The Ohio State University

### **63.369 Why are some individuals better in using negative templates to suppress distractors? Exploration of the inter-individual differences in proactive control efficiency**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Matthieu Chidharom<sup>1</sup> ([maca21@lehigh.edu](mailto:maca21@lehigh.edu)), Nancy Carlisle<sup>1</sup>; <sup>1</sup>Lehigh University

### **63.370 Category Variability Provides Challenges to Learning and Search Performance**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Banyan Breezeway*

Paeon Luby<sup>1</sup> ([paean.luby@richmond.edu](mailto:paean.luby@richmond.edu)), Arryn Robbins<sup>1</sup>; <sup>1</sup>University of Richmond

# Wednesday Morning Posters in Pavilion

## Perception and Action: Perception of Human Actions and Bodies

### 63.401 The role of action-related properties in shaping the object space in the biological and artificial brain

Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion

Davide Cortinovis<sup>1</sup> ([davide.cortinovis@unitn.it](mailto:davide.cortinovis@unitn.it)), Hans Op de Beeck<sup>2</sup>, Stefania Bracci<sup>1</sup>; <sup>1</sup>Center for Mind/Brain Sciences - CIMeC, University of Trento, Italy, <sup>2</sup>Laboratory of Neuro- and Psychophysiology, Department of Neurosciences, KU Leuven, Belgium

### 63.402 Individual variability in sensorimotor mu suppression to observation of human actions

Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion

Alison Harris<sup>1</sup> ([aharris@cmc.edu](mailto:aharris@cmc.edu)), Perri McElvain<sup>1</sup>, Alvin Villarosa<sup>1</sup>, Chandlyr Denaro<sup>1</sup>, Catherine L. Reed<sup>1</sup>; <sup>1</sup>Claremont McKenna College

### 63.403 Force representations support social perception of moving shapes

Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion

Yiling Yun<sup>1</sup> ([yiling.yun@g.ucla.edu](mailto:yiling.yun@g.ucla.edu)), Shuhao Fu<sup>1</sup>, Yi-Chia Chen<sup>1</sup>, Hongjing Lu<sup>1</sup>; <sup>1</sup>University of California, Los Angeles

### 63.404 Shared and individual thresholds for social signal detection

Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion

Rekha S. Varrier<sup>1</sup> ([rekha.s.varrier@dartmouth.edu](mailto:rekha.s.varrier@dartmouth.edu)), Alison H. Sasaki<sup>1</sup>, Tory G. Benson<sup>1</sup>, Ashna J. Kumar<sup>1</sup>, Jordan M. Selesnick<sup>1</sup>, Emily S. Finn<sup>1</sup>; <sup>1</sup>Dartmouth College

### 63.405 Semantic representations of human actions across vision and language

Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion

Diana C Dima<sup>1</sup> ([ddima@uwo.ca](mailto:ddima@uwo.ca)), Jody Culham<sup>1</sup>, Yalda Mohsenzadeh<sup>1</sup>; <sup>1</sup>Western University

### 63.406 Virtual reality protocol for decomposing complex behaviour into tractable subcomponents.

Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion

Levi Kumle<sup>1,2</sup>, Anna C. Nobre<sup>1,2</sup>, Melissa Vo<sup>3</sup>, Dejan Draschkow<sup>1,2</sup>; <sup>1</sup>Department of Experimental Psychology, University of Oxford, Oxford, UK, <sup>2</sup>Oxford Centre for Human Brain Activity, Wellcome Centre for Integrative Neuroimaging, University of Oxford, UK, <sup>3</sup>Department of Psychology, Scene Grammar Lab, Goethe University Frankfurt, Germany

### 63.407 Neurodynamical model for IT responses during the anorthoscopic perception of bodies

Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion

Martin A. Giese<sup>1</sup> ([martin.giese@uni-tuebingen.de](mailto:martin.giese@uni-tuebingen.de)), Anna Bognar<sup>2</sup>, Rufin Vogels<sup>2</sup>; <sup>1</sup>Hertie Institute / CIN, University

Clinic Tuebingen, <sup>2</sup>Lab. voor Neuro- en Psychofysiologie, KU Leuven, Belgium

### **63.408 The roles of kinematics and posture in yoga expertise identification**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion*

Sophia Baia<sup>1,2</sup> ([srbaia@asu.edu](mailto:srbaia@asu.edu)), Akila Kadambi<sup>2</sup>, Hongjing Lu<sup>2</sup>; <sup>1</sup>Arizona State University, <sup>2</sup>University of California, Los Angeles

### **63.409 The visual dorsal stream processes tool-use actions regardless of body part even in people born without hands**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion*

Florencia Martinez Addiego<sup>1</sup> ([fam53@georgetown.edu](mailto:fam53@georgetown.edu)), Yuqi Liu<sup>1,2</sup>, Caroline O'Brien<sup>1</sup>, Sriparna Sen<sup>1</sup>, Nanak Nihal Khalsa<sup>1</sup>, Maximilian Riesenhuber<sup>1</sup>, Jody Culham<sup>3,4</sup>, Ella Striem-Amit<sup>1</sup>; <sup>1</sup>Georgetown University Medical Center, <sup>2</sup>Institute of Neuroscience, Key Laboratory of Primate Neurobiology, CAS Center for Excellence in Brain Sciences and Intelligence Technology, Chinese Academy of Sciences, <sup>3</sup>Department of Psychology, University of Western Ontario, <sup>4</sup>Brain and Mind at Western, Western Interdisciplinary Research Building, University of Western Ontario

### **63.410 Prior Knowledge Biases the Perception of Body Postures**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion*

Qiu Han<sup>1</sup> ([hanqiuishere@gmail.com](mailto:hanqiuishere@gmail.com)), Marco Gandolfo<sup>1</sup>, Marius Peelen<sup>1</sup>; <sup>1</sup>Donders Institute for Brain, Cognition and Behaviour, Radboud University, 6525 HR, Nijmegen, The Netherlands

### **63.412 Identification and relative depth estimation in natural images of single human body parts**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion*

Jiaqi Liu<sup>1</sup>, Daniel Kersten<sup>1</sup>; <sup>1</sup>University of Minnesota Twin Cities

### **63.413 Identification of ambiguous human body parts depends on pair-wise structural knowledge in natural images**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion*

Ziwei Liu<sup>1</sup> ([liu00964@umn.edu](mailto:liu00964@umn.edu)), Daniel Kersten<sup>1</sup>; <sup>1</sup>University of Minnesota

### **63.414 fROI-level computational models enable broad-scale experimental testing and expose key divergences between models and brains**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion*

Elizabeth Mieczkowski<sup>1</sup> ([emiecz@mit.edu](mailto:emiecz@mit.edu)), Alex Abate<sup>1</sup>, Willian De Faria<sup>1</sup>, Kirsten Lydic<sup>1</sup>, James DiCarlo<sup>1,2,3</sup>, Nancy Kanwisher<sup>1,2,3</sup>, N. Apurva Ratan Murty<sup>1,2,3</sup>; <sup>1</sup>Department of Brain and Cognitive Sciences, Massachusetts Institute of Technology, <sup>2</sup>Center for Brains, Minds and Machines, Massachusetts Institute of Technology, <sup>3</sup>McGovern Institute for Brain Research, Massachusetts Institute of Technology

### **63.415 Percepts of biological motion disappear in slow-moving displays: Evidence for domain-specific agent perception**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion*

Merve Erdogan<sup>1</sup> ([merve.erdogan@yale.edu](mailto:merve.erdogan@yale.edu)), Nikolaus Troje<sup>2</sup>, Brian Scholl<sup>1</sup>; <sup>1</sup>Yale University, <sup>2</sup>York University

### **63.416 Human see, human do? Viewing tool pictures evokes action-specific activity in**

## visual hand-selective occipitotemporal cortex

Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion

Annie Warman<sup>1</sup> ([a.warman@uea.ac.uk](mailto:a.warman@uea.ac.uk)), Diana Tonin<sup>1</sup>, Fraser Smith<sup>1</sup>, Ethan Knights<sup>1</sup>, Stéphanie Rossit<sup>1</sup>;

<sup>1</sup>University of East Anglia, UK

## 63.417 Computing a unique neural fingerprint of bodily expressions and actions

Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion

Vojtech Smekal<sup>1</sup> ([v.smekal@maastrichtuniversity.nl](mailto:v.smekal@maastrichtuniversity.nl)), Marta Poyo Solanas<sup>1</sup>, Beatrice de Gelder<sup>1</sup>; <sup>1</sup>Maastricht University

## Eye Movements: Fixation

### 63.418 Occluding one eye during fixation increases wandering of both eyes

Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion

Scott N.J. Watamaniuk<sup>1,2</sup> ([scott.watamaniuk@wright.edu](mailto:scott.watamaniuk@wright.edu)), Stephen J. Heinen<sup>2</sup>, Devashish Singh<sup>2</sup>, Arvind Chandna<sup>2</sup>; <sup>1</sup>Wright State University, <sup>2</sup>The Smith-Kettlewell Eye Research Institute

### 63.419 Fixational instability impedes visually-guided behaviors in patients with amblyopia

Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion

Sunwoo Kwon<sup>1</sup> ([kwsunwoo@berkeley.edu](mailto:kwsunwoo@berkeley.edu)), Dennis Levi<sup>1,2</sup>; <sup>1</sup>Herbert Wertheim School of Optometry & Vision Science, UC Berkeley, <sup>2</sup>Helen Wills Neuroscience Institute

### 63.420 Systematic variation of fixational eye movements with degree of myopia.

Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion

Michele A. Cox<sup>1</sup>, Ashley M. Clark<sup>1</sup>, Janis Intoy<sup>1</sup>, Benjamin Moon<sup>1</sup>, Rwei-Jr Wu<sup>1</sup>, Jonathan D. Victor<sup>2</sup>, Michele Rucci<sup>1</sup>; <sup>1</sup>University of Rochester, <sup>2</sup>Weill Cornell Medical College

### 63.421 The effect of fixational eye movements on the flicker-defined edge detection

Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion

Seonggyu Choe<sup>1</sup> ([sgchoe@unist.ac.kr](mailto:sgchoe@unist.ac.kr)), Chang-Yeong Han<sup>1</sup>, Hyosun Kim<sup>2</sup>, Oh-Sang Kwon<sup>1</sup>; <sup>1</sup>Ulsan National Institute of Science and Technology, <sup>2</sup>Samsung Display R & D Center

### 63.422 Dynamical modeling of interindividual differences in fixational drift and microsaccades

Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion

Lisa Schwetlick<sup>1</sup> ([lisa.schwetlick@uni-potsdam.de](mailto:lisa.schwetlick@uni-potsdam.de)), Ralf Engbert<sup>1</sup>; <sup>1</sup>University of Potsdam

### 63.423 Dilation can minimize pupil-induced fixational drift.

Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion

Kevin Willeford<sup>1</sup> ([kwillefo@nova.edu](mailto:kwillefo@nova.edu)), Victoria Georges<sup>2</sup>; <sup>1</sup>NOVA Southeastern College of Optometry

### 63.424 Microsaccades in head-free high-acuity tasks

Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion

Paul Jolly<sup>1,2</sup> ([pjolly3@ur.rochester.edu](mailto:pjolly3@ur.rochester.edu)), Yuanhao H. Li<sup>1,2</sup>, Michele A. Cox<sup>1,2</sup>, Ashley M. Clark<sup>1,2</sup>, Bin Yang<sup>1,2</sup>, Ruitao Lin<sup>1,2</sup>, Zhetuo Zhao<sup>1,2</sup>, Michele Rucci<sup>1,2</sup>; <sup>1</sup>Department of Brain and Cognitive Sciences, University of Rochester, NY, USA, <sup>2</sup>Center for Vision Science, University of Rochester, NY, USA

### **63.425 A model comprising independent control and conjugacy explains miniature fixation eye movements**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion*

Stephen Heinen<sup>1</sup> ([heinen@ski.org](mailto:heinen@ski.org)), Arvind Chandna<sup>1</sup>, Devashish Singh<sup>1</sup>, Scott Watamaniuk<sup>1,2</sup>; <sup>1</sup>Smith-Kettlewell Eye Research Institute, <sup>2</sup>Wright State University, Department of Psychology

### **63.426 Different levels of awareness for spontaneous, involuntary, and voluntary microsaccades**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion*

Jan-Nikolas Klanke<sup>1,2</sup> ([jan-nikolas.klanke@hu-berlin.de](mailto:jan-nikolas.klanke@hu-berlin.de)), Sven Ohl<sup>1</sup>, Martin Rolfs<sup>1,2</sup>; <sup>1</sup>Humboldt-Universität zu Berlin, <sup>2</sup>Berlin School of Mind and Brain

### **63.427 Eye torsion induced by a tilted image is larger during free viewing than fixation**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion*

Jorge Otero-Millan<sup>1,2</sup> ([jom@berkeley.edu](mailto:jom@berkeley.edu)), Stephanie Reeves<sup>1</sup>; <sup>1</sup>University of California, Berkeley, <sup>2</sup>Johns Hopkins University

## **Eye Movements: Attention, cognition, neural processes**

### **63.428 Mr. Chips Jr. : A transformer-based computational model to study eye movements during reading**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion*

MiYoung Kwon<sup>1</sup> ([miyoungkwon02@gmail.com](mailto:miyoungkwon02@gmail.com)), Alish Dipani<sup>1</sup>; <sup>1</sup>Northeastern University

### **63.429 Maintaining eye fixations facilitates resolution of spatial cognitive conflicts**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion*

Anika Krause<sup>1,2,3</sup> ([anika.krause@uni-bielefeld.de](mailto:anika.krause@uni-bielefeld.de)), Christian H. Poth<sup>2,3</sup>; <sup>1</sup>Biopsychology and Cognitive Neuroscience, Department of Psychology, Bielefeld University, Germany, <sup>2</sup>Neuro-Cognitive Psychology, Department of Psychology, Bielefeld University, Germany, <sup>3</sup>Center for Cognitive Interaction Technology (CITEC), Bielefeld University, Germany

### **63.430 Eye movements as indicators of trait impulsivity and hypomania proneness in healthy adults**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion*

Juana Ayala<sup>1</sup>, Trisha Chakrabarty<sup>1,2</sup>, Ivan Torres<sup>1,2</sup>, Miriam Spering<sup>1,2</sup>; <sup>1</sup>University of British Columbia, <sup>2</sup>Djavad Mowafaghian Centre for Brain Health

### **63.431 Eye movements reveal alternative problem-solving strategies in concussed individuals during performance of the Tower of London task**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion*

Naila Ayala<sup>1</sup> ([nayala@uwaterloo.ca](mailto:nayala@uwaterloo.ca)), Abdullah Zafar<sup>1</sup>, Ewa Niechwiej-Szwedo<sup>1</sup>; <sup>1</sup>University of Waterloo

### **63.432 Leveraging the pupillary light reflex for cognitive pupillometry: An initial characterization of the PLR in two data sets**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion*

Russell Cohen Hoffing<sup>1</sup> ([russell.cohenh@gmail.com](mailto:russell.cohenh@gmail.com)), Steven Thurman<sup>1</sup>, Joseph Coyne<sup>2</sup>, Ciara Sibley<sup>2</sup>, Leah Enders<sup>3</sup>, Heather Roy<sup>1</sup>; <sup>1</sup>Army Research Laboratory, <sup>2</sup>Naval Research Laboratory, <sup>3</sup>DCS

### **63.433 Attention modulates V4 neural activity across and in the absence of microsaccades**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion*

Shawn Willett<sup>1,2</sup> ([smw146@pitt.edu](mailto:smw146@pitt.edu)), J. Patrick Mayo<sup>1,2</sup>; <sup>1</sup>University of Pittsburgh Department of Ophthalmology, <sup>2</sup>Center for the Neural Basis of Cognition

### **63.434 Pathway selective optogenetic manipulations on the oculomotor circuits of non-human primates**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion*

Xuefei Yu<sup>1</sup> ([yxdhhaa@126.com](mailto:yxdhhaa@126.com)), Atul Gopal<sup>1</sup>, Okihide Hikosaka<sup>1</sup>; <sup>1</sup>Laboratory of Sensorimotor Research, National Eye Institute, NIH

### **63.435 Functional architecture of visual responses in supplementary eye field**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion*

Pranavan Thirunavukkarasu<sup>1</sup> ([thirunap@yorku.ca](mailto:thirunap@yorku.ca)), Steven Errington<sup>2</sup>, Amirsaman Sajad<sup>2</sup>, Jeffrey D. Schall<sup>1</sup>; <sup>1</sup>Department of Biology, Centre for Vision Research, Vision Science to Application, York University, Toronto, ON, Canada., <sup>2</sup>Department of Psychology, Vanderbilt Vision Research Center, Vanderbilt University, Nashville, TN, USA.

### **63.436 Linking brain activity during viewing and recall of movie events through gaze behavior**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion*

Matthias Nau<sup>1</sup>, Hannah Tarder-Stoll<sup>2</sup>, Austin Greene<sup>1</sup>, Janice Chen<sup>3</sup>, Christopher Baldassano<sup>2</sup>, Juan Antonio Lossio-Ventura<sup>1</sup>, Francisco Pereira<sup>1</sup>, Chris Baker<sup>1</sup>; <sup>1</sup>National Institute of Mental Health (NIMH), <sup>2</sup>Department of Psychology, Columbia University, <sup>3</sup>Department of Psychological and Brain Sciences, Johns Hopkins University

### **63.437 V1 neural response precedes saccadic shift of visual target to the fovea**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion*

Tomer Bouhnik<sup>\*1</sup> ([tomerb3@gmail.com](mailto:tomerb3@gmail.com)), Ofir Korch<sup>\*1</sup>, Yarden Nativ<sup>1</sup>, Roy Oz<sup>1</sup>, Hamutal Slovin<sup>1</sup>; <sup>1</sup>The Leslie and Gonda (Goldschmied) multidisciplinary Brain Res. Ctr., Bar-Ilan Univ., Israel <sup>\*</sup>Equal Contribution

### **63.438 SSVE(PLR): Comparing target classification via pupillary light responses to standard EEG-based SSVEP**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion*

Steven Thurman<sup>1</sup>, Russell Cohen Hoffing<sup>1</sup>, Weichen Liu<sup>2</sup>, Chiyuan Chang<sup>2</sup>, Cory Stevenson<sup>3</sup>, Tzyy-Ping Jung<sup>2</sup>, Ying Wu<sup>2</sup>; <sup>1</sup>US DEVCOM Army Research Laboratory, <sup>2</sup>University of California, San Diego, <sup>3</sup>National Yang Ming Chiao

Tung University

### **63.439 The Costs of Paying Overt and Covert Attention Assessed with Pupillometry**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion*

Damian Koevoet<sup>1</sup> ([d.koevoet@uu.nl](mailto:d.koevoet@uu.nl)), Christoph Strauch<sup>1</sup>, Marnix Naber<sup>1</sup>, Stefan Van der Stigchel<sup>1</sup>; <sup>1</sup>Helmholtz Institute, Experimental Psychology, Utrecht University

### **63.440 Lateralized EEG markers of attention preceding and following shifts in eye position**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion*

Chong Zhao<sup>1</sup> ([chongzhao@uchicago.edu](mailto:chongzhao@uchicago.edu)), Edward Vogel<sup>2</sup>; <sup>1</sup>University of Chicago

## **Perceptual Organization: Symmetry, preference, ensembles**

### **63.441 Detecting second order symmetry**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion*

Chien-Chung Chen<sup>1</sup> ([c3chen@ntu.edu.tw](mailto:c3chen@ntu.edu.tw)), Christopher Tyler; <sup>1</sup>National Taiwan University, <sup>2</sup>Smith-Kettlewell Eye Research Institute

### **63.442 Relating Variability in Scalp EEG to Variability in Cortical Morphology**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion*

Sara Chaparian<sup>1</sup> ([sarach@yorku.ca](mailto:sarach@yorku.ca)), Jeffrey Schall<sup>1</sup>, Peter J. Kohler<sup>1</sup>; <sup>1</sup>York University, Toronto, Ontario, Canada

### **63.443 Multiple ambiguous neural representations may be perceived as identical to or different from each other: Can Divisive Normalization Explain Which?**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion*

Jaelyn Peiso<sup>1,2</sup> ([jaepeiso@gmail.com](mailto:jaepeiso@gmail.com)), Steven Shevell<sup>1,2,3</sup>; <sup>1</sup>Institute for Mind and Biology, University of Chicago, <sup>2</sup>Psychology Department, University of Chicago, <sup>3</sup>Department of Ophthalmology & Visual Science, University of Chicago

### **63.444 Task-dependent geometry of a perceptual space**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion*

Suniyya A. Waraich<sup>1</sup> ([suniyya.waraich@gmail.com](mailto:suniyya.waraich@gmail.com)), Mary M. Conte<sup>2</sup>, Jonathan D. Victor<sup>2</sup>; <sup>1</sup>Weill Cornell Graduate School of Medical Sciences, NY, <sup>2</sup>Feil Family Brain and Mind Research Institute, Weill Cornell Medical College, NY

### **63.445 Inductive Biases of Children and Adults in a Visual Patterning Task**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion*

Abhishek Dedhe<sup>1</sup>, Jodie Zheng<sup>1</sup>, Steven Piantadosi<sup>2</sup>, Jessica Cantlon<sup>1</sup>; <sup>1</sup>Carnegie Mellon University, <sup>2</sup>University of California, Berkeley

### **63.446 Estimating the error contributions of six component processes that determine the number of reportable centroids following a brief exposure of multicolor dot arrays**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion*

George Sperling<sup>1</sup> ([sperling@uci.edu](mailto:sperling@uci.edu)), Lingyu Gan<sup>2</sup>; <sup>1</sup>University of California, Irvine



## **63.447 ERP Evidence for the Role of Attention in the Visual Discrimination of Ensemble Summary Statistics**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion*

Anton Lukashovich<sup>1</sup> ([anl22@hi.is](mailto:anl22@hi.is)), Maxim Petrov<sup>2</sup>, Igor Utochkin<sup>3</sup>; <sup>1</sup>University of Iceland, <sup>2</sup>Saint-Petersburg Psychiatric Hospital named after P. P. Kashchenko, <sup>3</sup>University of Chicago

## **Scene Perception: Natural image statistics**

### **63.448 Ensemble Scene Processing is Regulated by Feature Complexity**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion*

Vignash Tharmaratnam<sup>1</sup>, Dirk B. Walther<sup>2</sup>, Jonathan S. Cant<sup>1</sup>; <sup>1</sup>University of Toronto Scarborough, <sup>2</sup>University of Toronto

### **63.449 Overestimation of Variability in Ensembles of Size and Color Despite Focusing Attention on Relevant Features**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion*

Amelia C. Warden<sup>1</sup> ([acwarden@colostate.edu](mailto:acwarden@colostate.edu)); <sup>1</sup>Colorado State University

### **63.450 Contextual coherence increases perceived numerosity independent of semantic content**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion*

Chuyan Qu<sup>1</sup> ([qchuyan@sas.upenn.edu](mailto:qchuyan@sas.upenn.edu)), Michael F. Bonner<sup>2</sup>, Elizabeth M. Brannon<sup>1</sup>; <sup>1</sup>University of Pennsylvania, <sup>2</sup>Johns Hopkins University

### **63.451 Toddler and preschooler attention to naturalistic scene features**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion*

Shannon Klotz<sup>1</sup> ([smklotz@ucdavis.edu](mailto:smklotz@ucdavis.edu)), Taylor Hayes<sup>2</sup>, John Henderson<sup>3</sup>, Lisa Oakes<sup>4</sup>; <sup>1</sup>University of California, Davis

### **63.452 The statistics of visual input change systematically with development**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion*

Erin Anderson<sup>1</sup> ([ema1@iu.edu](mailto:ema1@iu.edu)), Evelina Dineva<sup>1</sup>, Linda Smith<sup>2</sup>; <sup>1</sup>Indiana University

### **63.453 The time course of adaptation in modified reality: isotropic environments and orientation anisotropies**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion*

Bruno Richard<sup>1</sup> ([bruno.richard@rutgers.edu](mailto:bruno.richard@rutgers.edu)), Christino Barbosa<sup>1</sup>, Patrick Shafto<sup>1,2</sup>; <sup>1</sup>Rutgers University – Newark, Newark, NJ, <sup>2</sup>Institute for Advance Study, Princeton, NJ

### **63.454 Visual perceptual learning of natural and Portilla & Simoncelli images occurs in a significantly different manner than visual perceptual learning of unnatural images**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion*

Kazuhisa Shibata<sup>1</sup> ([kazuhisa.shibata@riken.jp](mailto:kazuhisa.shibata@riken.jp)), Daiki Ogawa<sup>2</sup>, Yuka Sasaki<sup>3</sup>, Takeo Watanabe<sup>3</sup>; <sup>1</sup>RIKEN, <sup>2</sup>Nagoya University, <sup>3</sup>Brown University

### **63.456 N300 sensitivity to statistical regularity persists for low-pass filtered scenes**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion*

Ling Lee Chong<sup>1</sup>, Kara D Federmeier<sup>1</sup>, Diane M Beck<sup>1</sup>; <sup>1</sup>University of Illinois, Urbana-Champaign

### **63.457 Eye movements during active vision are not driven by saliency, meaning, or aesthetics**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion*

Jennifer Hart<sup>1</sup> ([jhart2@bates.edu](mailto:jhart2@bates.edu)), Wentao Si<sup>1</sup>, Joaquin Torres<sup>1</sup>, Ronald Mezile<sup>1</sup>, Benjamin Balas<sup>2</sup>, Michelle Greene<sup>1</sup>; <sup>1</sup>Bates College, <sup>2</sup>North Dakota State University

### **63.458 Local image statistics can account for the perceived naturalness of image contrast**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion*

Taiki Fukiage<sup>1</sup> ([t.fukiage@gmail.com](mailto:t.fukiage@gmail.com)), Shin'ya Nishida<sup>1,2</sup>; <sup>1</sup>NTT Communication Science Laboratories, Nippon Telegraph and Telephone Corporation, Japan, <sup>2</sup>Graduate School of Informatics, Kyoto University, Japan

### **63.459 Viewpoint and seasonal variations in natural scene statistics**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion*

Michelle Greene<sup>1</sup> ([mgreene2@bates.edu](mailto:mgreene2@bates.edu)), Jennifer Hart<sup>1</sup>, Benjamin Balas<sup>2</sup>; <sup>1</sup>Bates College, <sup>2</sup>North Dakota State University

### **63.460 Understanding the high-dimensional nature of visual cortex representations**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion*

Raj Magesh Gauthaman<sup>1</sup> ([rgautha1@jh.edu](mailto:rgautha1@jh.edu)), Brice Ménard<sup>1</sup>, Michael Bonner<sup>1</sup>; <sup>1</sup>Johns Hopkins University

## **Scene Perception: Models**

### **63.461 Perceptual estimates of the physical attributes of people in photographs**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion*

Sarah Barrington<sup>1</sup> ([sbarrington@berkeley.edu](mailto:sbarrington@berkeley.edu)), Hany Farid<sup>1</sup>; <sup>1</sup>University of California, Berkeley

### **63.462 Evaluating physical scene understanding with objects consisting of different physical attributes in humans and machines**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion*

Hsiao-Yu Tung<sup>1,2</sup> ([sfish0101@gmail.com](mailto:sfish0101@gmail.com)), Mingyu Ding<sup>3</sup>, Zhenfang Chen<sup>4</sup>, Daniel Bear<sup>2</sup>, Chuang Gan<sup>3,4</sup>, Joshua Tenenbaum<sup>1</sup>, Daniel Yamins<sup>2</sup>, Judith Fan<sup>5</sup>, Kevin Smith<sup>1</sup>; <sup>1</sup>Massachusetts Institute of Technology, <sup>2</sup>Stanford University, <sup>3</sup>University of Hong Kong, <sup>4</sup>MIT-IBM Watson AI Lab, <sup>5</sup>University of California San Diego

### **63.463 How real can they get? Investigating neural responses to GAN generated scenes.**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion*

Aylin Kallmayer<sup>1</sup> ([aylin.kallmayer@gmail.com](mailto:aylin.kallmayer@gmail.com)), Melissa Vo<sup>1</sup>; <sup>1</sup>Goethe-University Frankfurt Germany

### **63.464 Benchmarking Human Mid-Level Scene Understanding**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion*

Yoni Friedman<sup>1</sup>, Thomas O'Connell<sup>1</sup>, Daniel Bear<sup>2</sup>, Jiajun Wu<sup>2</sup>, Judy Fan<sup>2,3</sup>, Josh Tenenbaum<sup>1</sup>, Dan Yamins<sup>2</sup>; <sup>1</sup>MIT, <sup>2</sup>Stanford, <sup>3</sup>UCSD

### **63.465 The similarity of CNN, behavioral, and PPA feature spaces**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion*

Pei-Ling Yang<sup>1</sup> ([plyang2@illinois.edu](mailto:plyang2@illinois.edu)), Zhenan Shao<sup>1</sup>, Diane M. Beck<sup>1</sup>; <sup>1</sup>University of Illinois

### **63.466 Toward A Computational Model of Directional Visual Relations**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion*

Pachaya Sailamul<sup>1</sup> ([pachaya\\_sailamul@brown.edu](mailto:pachaya_sailamul@brown.edu)), Thomas Serre<sup>1</sup>; <sup>1</sup>Brown University

### **63.467 A Transfer Account of Orientation Ensemble Averaging**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion*

Jacob Zepp<sup>1</sup> ([jacobzepp@usf.edu](mailto:jacobzepp@usf.edu)), Chad Dubé<sup>1</sup>; <sup>1</sup>University of South Florida

## **Scene Perception: Virtual environments**

### **63.468 Studying spatial representations of our visual experience using real-world environments**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion*

Brenda Garcia<sup>1</sup>, Anna Mynick<sup>1</sup>, Caroline Robertson<sup>1</sup>; <sup>1</sup>Dartmouth College

### **63.469 Artificial Scene Grammar Acquisition**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion*

Maxim Spur<sup>1</sup> ([spur@psych.uni-frankfurt.de](mailto:spur@psych.uni-frankfurt.de)), Melissa Vo<sup>1</sup>; <sup>1</sup>Scene Grammar Lab, Goethe University

### **63.470 The brain predominantly represents attended semantics rather than global semantics in a naturalistic task**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion*

Tianjiao Zhang<sup>1</sup> ([t.zhang@berkeley.edu](mailto:t.zhang@berkeley.edu)), Jack Gallant<sup>1</sup>; <sup>1</sup>UC Berkeley

### **63.471 Comparing Fire: Precision of Visual Perception of Fire Intensity**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion*

Justin W. Bonny<sup>1</sup> ([justin.bonny@morgan.edu](mailto:justin.bonny@morgan.edu)), James A. Milke<sup>2</sup>; <sup>1</sup>Morgan State University, <sup>2</sup>University of Maryland, College Park

### **63.472 Memory-based predictions facilitate perceptual judgements across head-turns in naturalistic scene perception**

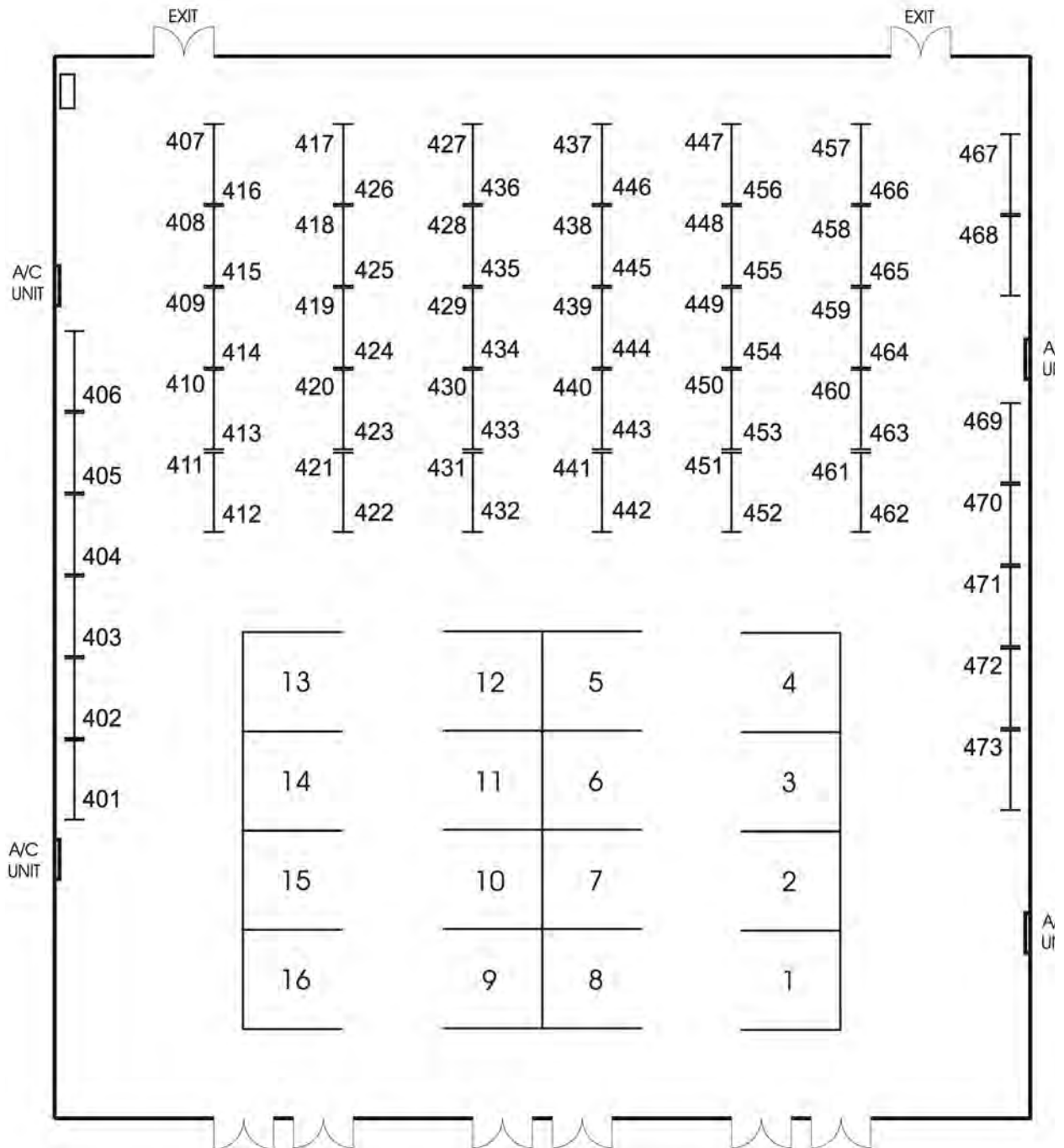
*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion*

Anna Mynick<sup>1</sup> ([anna.r.mynick.gr@dartmouth.edu](mailto:anna.r.mynick.gr@dartmouth.edu)), Thomas L Botch<sup>1</sup>, Allie Burrows<sup>1</sup>, Brenda D Garcia<sup>1</sup>, Adithi Jayaraman<sup>1</sup>, Adam Steel<sup>1</sup>, Caroline E Robertson<sup>1</sup>; <sup>1</sup>Dartmouth College

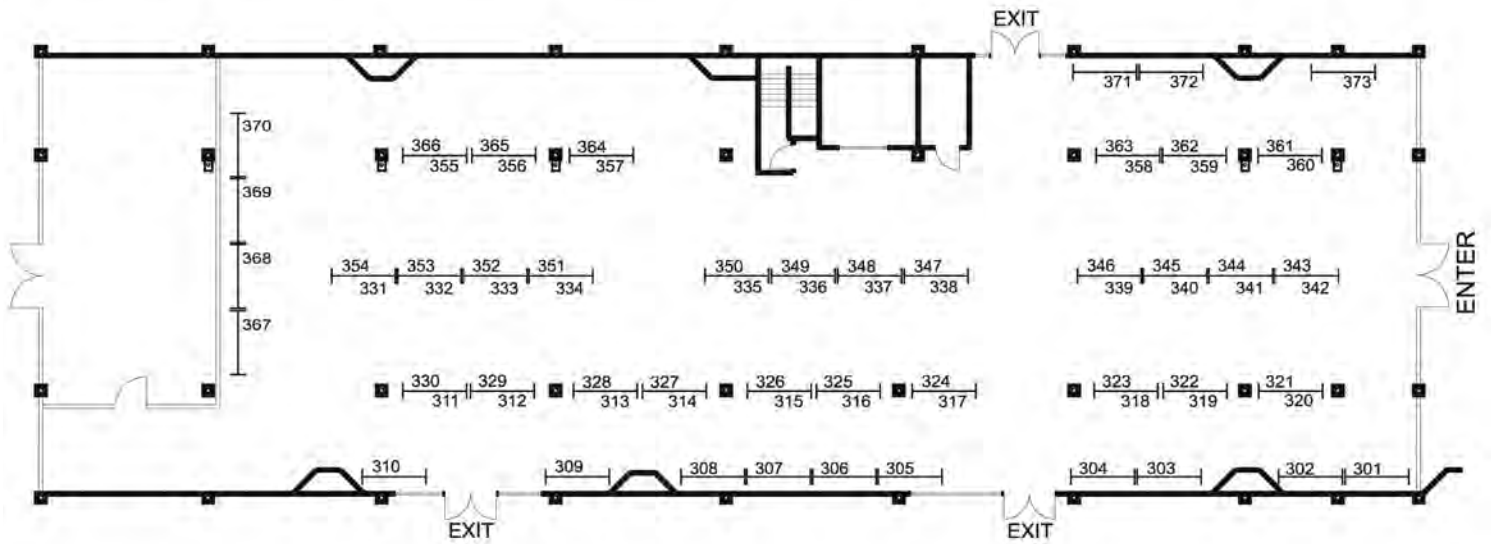
### **63.473 Visual clutter: The role of background texture, set size, and item organization**

*Wednesday, May 24, 2023, 8:30 am – 12:30 pm, Pavilion*

Yelda Semizer<sup>1</sup> ([yelda.semizer@njit.edu](mailto:yelda.semizer@njit.edu)), Tomer Weiss<sup>1</sup>; <sup>1</sup>New Jersey Institute of Technology



# Pavilion



# Banyan Breezeway



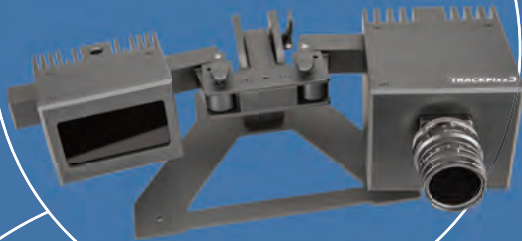
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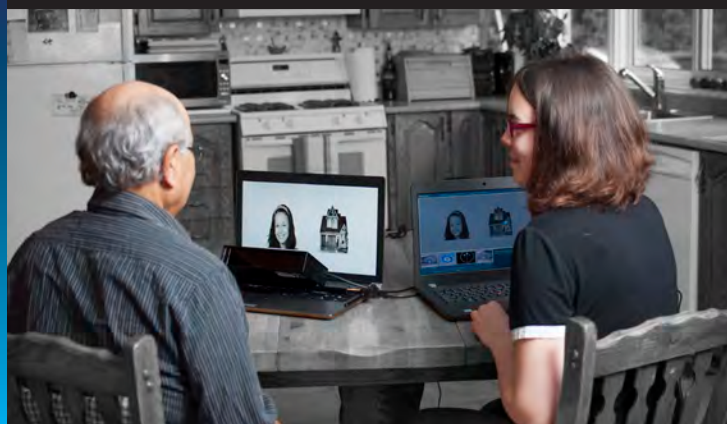
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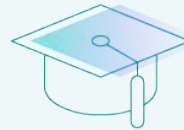
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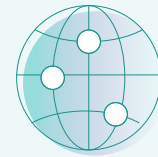
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Booths 6, 7 & 8

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Peter April, Jean-Francois Hamelin, Sophie Kenny, and Jonathan Tong wish you well.



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Booth 11

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Booth 16

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## C. Light Technologies (Bronze Sponsor)

Booth 15

**C. Light Technologies**, is a neuro-tech and AI company whose mission is to create a scanning laser ophthalmoscope (SLO) technology and eye tracking software to objectively measure eye motion via the retina. We are on the mission to create novel technology to enhance the quality of life for people with neurodegenerative disorders via the eye-brain connection.



The Retitrack™ is an Eye Movement Monitor. It is intended for recording, viewing, measuring, and analyzing temporal characteristics of fixation and saccadic responses when viewing a visual stimulus.

## NIRx Medical Technologies (Bronze Sponsor)

Booth 9

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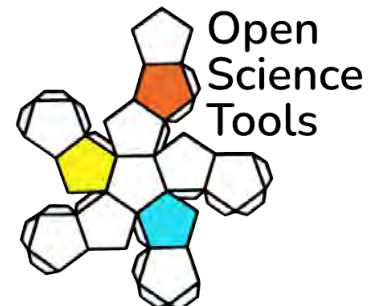
Booth 2

**Open Science Tools** created and maintains [PsychoPy](#), [PsychoJS](#) and [Pavlovio](#).

These tools are designed to make it as easy as possible to create high-precision experiments for lab-based or online studies, even running vision-science experiments and providing gamma-correction in browser-based studies. Stop by the booth to find out what's now possible – you might be surprised!

[PsychoPy](#) and [PsychoJS](#) are unusual in being open-source tools that are supported by a revenue stream, from our hosting and consultancy services, which means the tools are developed and supported by a full-time professional team. The best of both worlds!

We now also provide consultancy services, either to help generate your studies, or to provide training for your department or team. If you don't have time to write that next experiment, or to port your code over from `SomeOtherPackage`, but you do have some left over funding, then get in touch on [consultancy@opensciencetools.org](mailto:consultancy@opensciencetools.org)



## Psychology Software Tools (Bronze Sponsor)

Booth 14

**Psychology Software Tools** – Developers of E-Prime 3.0 stimulus presentation software. E-Prime 3.0 now includes E-Prime Go for remote data collection! Integrate E-Prime with eye tracking and EEG with E-Prime Extensions for Tobii Pro, EyeLink, Net Station, and Brain Products. Use Chronos for millisecond-accurate

responses, sound output, and triggers to external devices. Chronos Adapters provide a simple connection to external devices, including Brain Products, ANT Neuro, BIOPAC, BioSemi, Neuroscan, MagstimEGI, NIRx, g.tec, Smart Eye and more. PST also provides solutions for fMRI research, such as Fiber Optic and Wireless Response Systems, Digital Projection System, and an MRI Simulator with head motion tracking. PST has a 35-year company history with 100,000+ users in 75 countries!



## Psychonomic Society (Bronze Sponsor)

Booth 10

**The Psychonomic Society** is a community of over 4,300 cognitive and experimental psychologists from more than 60 countries around the world. Members include some of the most distinguished researchers in the field. Many are concerned with the application of psychology to health, technology, and education. What brings us together is that we study the basic, fundamental properties of how the mind works by using behavioral techniques to better understand mental functioning.



Our most innovative research uses converging methods from behavioral measurement, neuroscience, computational modeling and other fields to achieve our research goals. Members of the Society conduct research on questions concerning memory, learning, problem solving, decision making, language, attention, and perception. We also connect with research in biology, chemistry, statistics, computer science, medicine, law, and business.

We achieve our objectives by hosting meetings around the world, publishing seven world-class, peer-reviewed journals, disseminating our research, and funding workshops and symposia.

[Visit us online](#) and [Become a Member](#).

## Rogue Research Inc. (Bronze Sponsor)

Booths 3 & 4

**Rogue Research** has been your partner in neuroscience research for over 20 years. As developers of the Brainsight® family of neuronavigation systems for non-invasive brain stimulation, we have helped make transcranial magnetic stimulation more accurate and more reproducible while keeping it simple and effective. 20 years and over 1000 laboratories later, Brainsight® continues to evolve to meet the needs in non-invasive brain stimulation.



Rogue Research has expanded beyond navigation to develop our own, next-generation, TMS device: Elevate™ TMS. Elevate™ TMS offers control over the pulse shape to ensure more reproducible excitatory or inhibitory effects on the targeted network. While Brainsight® ensures accurate targeting and Elevate™ TMS ensures reliable circuit interaction, Rogue Research is also developing a robotic positioner to ensure that the plan is accurately and efficiently carried out. The unique design ensures accuracy, repeatability and simplicity.

Rogue Research also offers our Brainsight® Vet line of neurosurgical and neuronavigation tools for animal research. Come see our navigated microsurgical robot, which is the most accurate animal stereotaxic system on the market. We also offer custom MRI compatible implants and a line of MRI coils and testing platforms.

## WorldViz VR (Bronze Sponsor)

Booth 1

For 20 years, **WorldViz VR** has helped over 1500 universities, businesses and government organizations to conduct **leading edge research** with Virtual Reality.



Over the years, WorldViz VR has developed **Vizard**, a python-based platform that enables users to rapidly build 3D virtual reality applications that solve real world business and research challenges.

WorldViz will present SightLab VR, a fully GUI based tool that allows users to collect, review and **analyze eye tracking data** with support for all the major PC based VR eye tracking devices including HP Reverb Omnicept, Vive Pro Eye, Pupil Labs and Tobii VR. It will allow drag and drop adding of videos and 3D models, and many of the most used analytics methods are included into the provided templates.

Build a scene, run your experiment and review in minutes. Fully expandable and modifiable by using the GUI configurator or python code.

The WorldViz components allow integration of highly targeted **VR labs**, and we are happy to help customers configure their own labs, tailored to their specific needs.

## Zeto, Inc. (Bronze Sponsor)

Booth 5

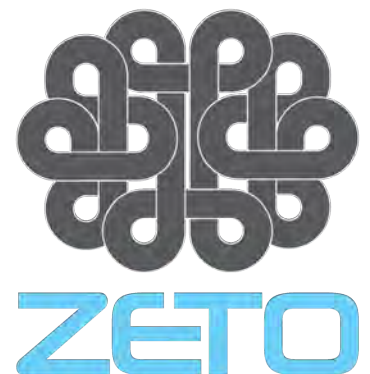
**Zeto, Inc.** is a privately held medical technology company located in Santa Clara, CA focused on transforming the way electroencephalography is done in clinical and research settings. Zeto's revolutionary FDA-cleared EEG platform brings the traditional EEG procedure to the 21st century by offering the WR19, a zero-prep, wireless, easy-to-wear headset with active, dry electrodes that can be positioned as per the 10-20 system.

The Zeto headset is backed by a cloud data and software platform, a real-time LSL-based API, and a TTL-based trigger device for ERP studies.

The company plans to leverage its platform technology to improve access and quality to medical EEG testing and to enable and improve adjacent biomedical research and clinical trials.

Learn more about our research platform: <https://zeto-inc.com/academic-discount/>

Contact us: [research@zetoinc.com](mailto:research@zetoinc.com)





# TRADEWINDS ISLAND RESORT DIRECTORY


## DINING & ENTERTAINMENT


 Starbucks™ coffee and cocktails . . . 1

 Family Sports Pub, Lunch, Dinner 'til Late Night . . . 21

 Breakfast & Dinner – Casual dining, steak & seafood, sunset view . . . 21


 Breakfast pastries, fruit, snacks, beer/wine, sandwiches to order . . . . . 1


 Lunch, tropical drinks, and sunset dinners . . . 12


 Casual indoor and outdoor dining for all meals . . . . . 29


 Pizza, wings, ice cream and sundaes . . . . . 23

 Exceptional cuisine for Lunch and Dinner, Sunday Brunch Buffet . . . 4

 Live entertainment, bottled beer and full bar . . . . . 14

 Tiki bar, tropical drinks, Lunch and lite bites . . . 22

 Starbucks™ coffee, on-the-go-breakfasts, cocktails . . . . . 26

 Tropical drinks, beer, wine and appetizers . . . 31

## MEETING & EVENT FACILITIES, ISLAND GRAND

Banyan . . . . . 5

Banyan Breezeway . . . . . 5

Bird Key . . . . . 2

Blue Heron, 2nd floor . . . . . 3

Board Room, 2nd floor . . . . . 3

Breck Deck . . . . . 22

Chart Room, 2nd floor . . . . . 3

Citrus . . . . . 5

Compass Room, 2nd floor . . . . . 3

Cypress Villa, 2nd floor . . . . . 17

Garden Courtyard . . . . . 6

Glades . . . . . 5

Grand Palm Colonnade . . . . . 1

Horizons East & West . . . . . 20

Horizons Portico . . . . . 19

Indian Key . . . . . 2

Island Ballroom . . . . . 2

Jacaranda Beach . . . . . 9

Jacaranda Hall . . . . . 5

Jasmine . . . . . 5

Long Key . . . . . 2

Palm . . . . . 5

The Pavilion . . . . . 18

Pirate Island . . . . . 16

Royal Tern, 2nd floor . . . . . 3

Sabal . . . . . 5

Sawgrass . . . . . 5

Sawyer Key . . . . . 2

SeaBreeze Terrace . . . . . 11

South Beach Lawn . . . . . 8

Snowy Egret, 2nd floor . . . . . 3

Tarpon Key . . . . . 2

## OFFICES, BUSINESS

ATM . . . . . 1, 21, 26

Business Center . . . . . Lobby

## RECREATION

TradeWinds Adventure Center . . . . 11

Guy Harvey Outfitter . . . . . 27

Cabana Hut . . . . . 10, 30

Chess Set, Lifesize . . . . . 6

Fitness Centers . . . . . 24, 26

KONK for Camps & Crafts . . . . . 17

Mini-Golf . . . . . 7

Paddleboat Landings . . . . . 15

Pet Play Zone . . . . . 7

Pirate Island . . . . . 16

Sauna . . . . . 13

Tennis Reservations, Racquets . . . . 11

Towels for beach & pool . . . . . 11, 30

Game Room Arcade . . . . . 17

Volleyball . . . . . 10

Watersports . . . . . 11

Whirlpools . . . . . 11, 28

## SHOPS & SALON

Beaker's Tropical Outfitters . . . . . 20

Body Works Spa & Fitness . . . . . 24

Deli & General Store . . . . . 1

Guy Harvey Outfitter Shop . . . . . 27

## GUY HARVEY OUTPOST

Fitness Center, 3rd floor . . . . . 26

Guy Harvey Outfitter Shop . . . . . 27

Guy's Gulfside Grill . . . . . 29

Li'l Guys Activities . . . . . 30

North Terrace Courtyard . . . . . 32

Oasis Adult Courtyard . . . . . 28

Perks Up Coffee & more . . . . . 26

Sunset Beach . . . . . 31

SandBar . . . . . 31



# Tradewinds Island Grand Resort

