MODVIS 2022

Thursday May 12 & Friday May 13 20+5 minutes per talk+questions

Thursday 9:00-12:00 Moderator: Qasim Zaidi

9:00-9:25 Model of Visual Contrast Gain Control and Pattern and Noise Masking **Joshua A. Solomon**, *City University of London*

9:25-9:50 Modeling Perceptual Grouping Strategies in Visual Search Tasks **Maria Kon** and **Gregory Francis**, *Purdue University*

9:50-10:15 Understanding the Influence of Perceptual Noise on Visual Flanker Effects through Bayesian Model Fitting **Jordan Deakin** and **Dietmar Heinke**, *University of Birmingham*

10:15-10:45 Coffee break

10:45-11:10 Constraining computational models of brightness perception: what's the right psychophysical data? Guillermo Aguilar, Joris Vincent and Marianne Maertens, *Technische Universitat Berlin*

11:10-11:35 Fixational Eye Movements, Perceptual Filling-In, and Perceptual Fading of Grayscale Images Michael E. Rudd, *University of Nevada, Reno*

11:35-12:00 ScanDy: Simulating Realistic Human Scanpaths in Dynamic Real-World Scenes Nicolas Roth, Martin Rolfs, *Humboldt-Universität zu Berlin*; and Klaus Obermayer, *Technische Universität Berlin*

12:00-2:30 Lunch break

Thursday 2:00-5:00 Moderator: Anne Sereno

2:00-2:25 A Bayesian Account of Depth from Shadow James Elder, Patrick Cavanagh, *York University*; and Roberto Casati, *Institut Jean Nicod*

2:25-2:50 Modeling the impacts of inter-display and inter-lens separation on perceived slant in Virtual Reality Head-mounted displays **Jonathan Tong, Laurie M. Wilcox** and **Robert S. Allison**, *York University*

2:50-3:15 Monocular 3D Reconstruction of Polyhedral Shapes via Neural Network **Mark Beers** and **Zygmunt Pizlo**, *University of California, Irvine*

3:15-3:45 Coffee break

3:45-4:10 A Two-Layer Model Explains Higher-Order Feature Selectivity of V2 Neurons **Timothy D. Oleskiw**, **Justin D. Lieber**, **J. Anthony Movshon** and **Eero P. Simoncelli**, *New York University*

4:10-4:35 Perceived object motion variance across optical contexts Jan Jaap R. van Assen, *Delft University of Technology*; Mitchell J.P. van Zuijlen and Shin'ya Nishida, *Kyoto University*

4:35-5:00 Feature tracking and geometrical priors counteract illusory non-rigidities from outputs of motion-energy cells Akihito Maruya and Qasim Zaidi, *Graduate Center for Vision Research, State University of New York*

5:00-5:30 Business meeting

Thursday 5:30-6:30 Keynote Moderator: Jeff Mulligan

The complex brain analyses of the perceived direction of visual motion. **George Sperling**, *University of California, Irvine*

Friday 9:00-11:30 Moderator: Zyg Pizlo

9:00-9:25 Characterization Of Local And Global Statistics In Three Kinds Of Medical Images, And An Example Of Their Role In A Clinical Judgment **Jonathan Victor**, **Amanda Simon**, *Weill Cornell Medical College*; and **Craig K. Abbey**, *University of California, Santa Barbara*

9:25-9:50 Reconstruction-as-Feedback Serves as an Effective Attention Mechanism for Object Recognition and Grouping Seoyoung Ahn, Hossein Adeli and Gregory Zelinsky, *State University of New York at Stony Brook*

9:50-10:15 Visual expertise in anatomically-inspired model of the visual system Garrison W. Cottrell, Martha Gahl, and Shubham Kulkarni, University of California, San Diego

10:15-10:40 Coffee break

10:40-11:05 Modeling the Ventral and Dorsal Cortical Visual Pathways Using Artificial Neural NetworksZhixian Han and Anne Sereno, *Purdue University*

11:05-11:30 Validity Of Neural Distance Measures In Representational Similarity Analysis Fabian A. Soto, Emily R. Martin, Hyeonjeong Lee, Nafiz Ahmed, Juan Estepa, Kianoosh Hosseini, Olivia A. Stibolt, Valentina Roldan, Alycia Winters and Mohammadreza Bayat, *Florida International University*

11:30 End of MODVIS 2022