THIRTY-FIFTH ANNUAL INTERDISCIPLINARY CONFERENCE

Teton Village, Jackson Hole, Wyoming

January 24 - January 29, 2010

Organizer: George Sperling, University of California, Irvine

Proceedings

Sunday, January 24: 5:15 - 5:55 pm***Reception***Registration, Snacks, and Refreshments.

Sunday, January 24: 6:00 - 8:00 pm Binocular Combination, Binding, and Chromatic Aberration (Organizer: Steve Shevell)
 Larry Cormack, U. Texas, Austin. Motion processing with two eyes in three dimensions.
 Steve Shevell, U. Chicago. What neural representation mediates perceptual memory for rivalrous images?
 Don MacKay, UCLA. Error detection, binding and the medial temporal lobe: Evidence from amnesic HM.
 Florent Autrusseau, University of Nantes. Chromatic and wavefront aberrations: Estimates of typical & individual variation in retinal images.

Monday, January 25: 4:00 – 8:00 pm Attention, Psychoacoustics and Speech (Organizer: Misha Pavel)
Petr Janata, UC Davis. Probability structure in music and the coordination of brain networks across multiple timescales.
Barbara Shinn-Cunningham, Boston U. Dynamics of focusing and switching auditory attention.
Hynek Hermansky, Johns Hopkins U. Multistream recognition of speech.
Shihab Shamma, U. Maryland. Coherence as the basis of complex scene analysis.
Paul Sajda, Columbia U. Sparse decoding of neural dynamics by a large-scale model of V1.
Misha Pavel, Oregon Health & Science U. Early perceptual stimulus processing and triage.

Tuesday, January 26: 4:00 – 8:00 pm Neural Computation (Organizer: John Reynolds)
Bill Geisler, U. Texas, Austin. Consequences of noise for neural encoding and decoding.
Valentin Dragoi, U. Texas, Houston. Noise and correlated variability in visual cortical networks.
Adam Kohn, Albert Einstein College of Medicine. Relating response variability across stages of cortical processing.
Nick Priebe, U. Texas, Austin. Variability, spike threshold and stimulus selectivity in primary visual cortex.
John Reynolds, Salk Inst. Spatial attention decorrelates intrinsic activity fluctuations in macaque area V4.
Tania Pasternak, U. Rochester. Memory-related signals in the prefrontal cortex depend on cell type only in the absence of sensory stimulation.

Wednesday, January 27: 4:00 – 8:00 pm Sleep, Aging, Cue Utilization, and Perceptual Learning
Roger Ratcliff, Ohio State U. Sleep deprivation, the psychomotor vigilance task and driving (and simple RT).
Tom Busey, Indiana U. On the nature of age-related changes in visual temporal order judgment performance.
Ulman Lindenberger, Max Planck Inst., Heterogeneity in cognitive aging: Genetic and imaging evidence.
Matthias Scheutz, Indiana U. Gendered voice and robot entities: Do males and females view robots differently?
Ben Backus, SUNY. Properties of learned perceptual bias.

Barbara Dosher, UC Irvine. Task precision in visual attention.

Thursday, January 28: 4:00 – 8:00 pm **Physiological, Applied, Experimental and Theoretical Perception** Xiaoping Hu, *Emory U*. Functional and effective connectivities in resting state brain networks derived from fMRI data. Richard Shiffrin, *Indiana U*. Explaining noisy data: Normative and generative models of function estimation. Zhong-Lin Lu, USC. Binocular combination in normal and amblyopic vision. Ulrich Mayr, U. Oregon. Capturing the dynamics of control via eye movements. George Sperling, UC Irvine. Modeling the time course of the first few seconds of binocular rivalry.

**Brief Business Meeting

Friday, January 29: 4:00 – 8:00 pm Friday Night Miscellany
Nicholas Port, Indiana U. Ocular-motor performance of Indiana University varsity athletes.
Chi-Hung Juan, Nat'l Central U., Taiwan. The antisaccade cost is modulated by contextual experience of location probability.
Jeff Mulligan, NASA Ames. Empirical measurement of visual conspicuity.
Kerry Jordan, Utah State U. Intersensory redundancy enhances early numerical abilities.
Danielle McNamara, U. Memphis. Linguistic features of writing.

* * * 8:20pm Banquet * * *

Attendees

John Antrobus, *CUNY* Eric Egan, *Ohio State U*. Izidor Gertner, *CUNY* Bruce Henning, *U. Oxford, UK* Holly Jimison, *OHSU* Jessica Love, *Ohio State U*. Eric Mais, *U. Hawaii* Gail McKoon, *Ohio State U*. Tim McNamara, *Vanderbilt U*. Bennet Murdock, U. Toronto Erica Okada, U. Hawaii Corey White, Ohio State U.