Forty Ninth Annual Interdisciplinary Conference
Jackson, Wyoming
Jan 30-Feb 3, 2025
Organizers: Nicholas Port and Zyg Pizlo

Thursday Jan 30th. 4:00-8:00
Michael Frank, *Brown*. Curriculum effects and compositionality emerge with in-context learning in neural networks.
Thomas Serre, *Brown*. Visual perspective taking in machines vs. humans.
James Elder, *U Toronto*. Fourier analysis of shape perception in humans and machines
Brian Garibaldi, *Northwestern*. Reinvigorating the Bedside Clinical Encounter.
Jean-Paul Noel, *U of Minn*. Aberrant updating of internal models in Autism Spectrum Disorder.
Zyg Pizlo, *UC Irvine*. A guide through symmetry: math, physics, perception.

Friday Jan 31th, 4:00-8:00
Merri Rosen, *NE Ohio Med U*. Characterizing Behavioral Effects of Early-Life Stress in an Animal Model of Auditory Processing
Josh Brown, *Indiana U*. Scalable neural network models of human vmPFC activity, goal-directed planning, and problem solving
Matt Chafee, *Univ of Minn*. Cortical and subcortical computations for cognitive control.
Justin Halberda, *Johns Hopkins*. If there is no such thing as a JND, then why do all people believe that there is such a thing? AND Most thoughts are magnitude thoughts.
Indie Garwood, *U Penn*. Characterizing multiregional dynamic responses to neuromodulation with multifunctional Neurotechnology.
Sam Clarke, *UC Sanata Barbra*. Can we "see" value? Spatiotopic "visual" adaptation to an imperceptible dimension.
Laura Soter, *York U*. Investigating Children's Theory of Belief Change: The Role of Prior Belief Strength.

Saturday Feb 1, 4:00-8:00 - Special Symposium, Organizer: Colin Allen
Ximena Nelson, *U Canterbury*. Cognition in jumping spiders.
Jake Beck & Kevin Lande, *York U*. Hidden Movements.
Kristin Andrews, *York University*. Animal Rules.
Colin Allen, *UC Santa Barbara*. Attention is not all you need (Two types of structure for transformers).
Jonathan Phillips, *Dartmouth*. Domain-general modal cognition.
Kari Theurer, *Trinity College*. On the role of development and environment in explanations of psychiatric disorder.

Adina Roskies, *UC Santa Barbara*. Free will and the Readiness Potential.

Valentin Dragoi, *Rice U*. Information processing and coding in cortical circuits during natural behavior.
Julio Martinez-Trujillo, *Western University*. The marmoset Hippocampus is a GPS but G is for gaze.
Corry Miller, *UC San Diego*. Neural mechanisms for solving Cocktail Party Problem.
Monika Jadi, *Yale*. Brain state and visual stimulation differentially modulate inter-layer communication subspace in V1.
Ariana Andrei, *Houston Methodist*, Cortical organization of visual information destined for perception*.*
Zac Davis, *Utah*. Traveling waves reflect fundamental cortical computations.
Anirvan Nandy, *Yale*. Behavioral & neural dynamics of cooperation in marmoset dyads.

Pizza party

<u>Monday Feb 3 4:00-8:00</u>
Nicholas Port, *Indiana U*. Diffusion Tensor Analysis of White Matter Tracts is Prognostic of Persisting Post-Concussion Symptoms in Collegiate Athletes**.**
Franco Pestilli, U*T Austin*. Putting big data to good use in neuroscience.
Jessi Witt, *Colorado State*. Ensemble Perception to Improve Decisions under Uncertainty.
Mike Landy, *NYU*. The processing of 3D motion in the human visual cortex.