John A. Lynch Lecture Series

SPONTANEOUS BRAIN DYNAMICS: GEOMETRIC VISUAL HALLUCINATIONS, AMBIGUOUS PERCEPTION, AND STOCHASTIC ATTRACTOR NETWORKS

4 pm Monday, March 25
105 Jordan Hall of Science

Reception to precede the lecture at
3:30 pm in the Jordan Hall galleria

Paul C. Bressloff, Ph.D.
Professor of Mathematics
University of Utah

Advances in experimental techniques, including fMRI, optical imaging, multi-electrode recordings, and optogenetics, combined with sophisticated data analytic tools, are shedding light on the intricate functional architecture of specific brain regions.

In this talk, Professor Bressloff will present a neural field theory of geometric visual hallucinations, and will describe a neural field theory of binocular rivalry waves. He will also discuss how stochastic neural fields can be used to investigate the stimulus-dependent suppression of neural variability in multiple-attractor networks.

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