

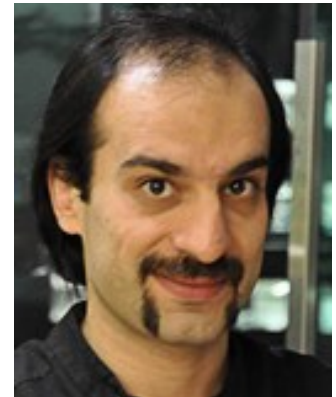
University of Maryland

Neuroscience and Cognitive Science Seminar

Breaking the neural code with brain perturbations

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A sensory stimulus such as the image of a face activates a cascade of neural responses in the visual system at different temporal and spatial scales. Some features of this complex pattern of activity are read-out by downstream neural structures, causally shape the perception of the stimulus and drive the behavior, I refer to these unknown features as “the neural code”. Other features of the neural response pattern are merely epiphenomenal, driven by perturbing a complex system with a complex stimulus. Development of a rigorous theory that explains visual perception based on its neural underpinning is impossible without exclusion of the neural epiphenomena and establishment of quantitative links between causally relevant neural events and perception. In this talk I will bring together evidence from electrical microstimulation, neuropharmacological perturbations and optogenetics to investigate the neural code for the case of face recognition behavior in non-human primate brain.

Friday, January 26, 2018

10:15am, Room 1103 Bioscience Research Building

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