

Context in Visual Cortex

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Massimo investigates the structure and function of neuronal circuits in the mammalian cortex, focusing on sensory information processing. Using advanced electrophysiological, imaging, optogenetic, and anatomical methods, his lab studies everything from single neuron biophysics *in vitro* to neuronal population recordings in awake animals. This approach illuminates the roles of individual circuit elements in sensory processing, bridging cellular and systems neuroscience.

Abstract

Animals and humans contextualize sensory information to extract meaning. Indeed, sensations are influenced by the context within which they occur. In the visual world, for example, the scene surrounding a stimulus, i.e. its context, modulates our perception of the stimulus as well as the neuronal response to that stimulus.

I will discuss experiments addressing the mechanisms by which circuits of neurons in the visual cortex of the mouse contribute to contextual modulation. Revealing the logic through which neuronal circuits implement contextual modulation is providing us with a mechanistic understanding of among the most fundamental properties of sensory processing.

September 8, 2023, 12PM

In-Person

Online

Max Planck Institute for Neurobiology
of Behavior – caesar, Lecture Hall,
Ludwig-Erhard-Allee 2, 53175 Bonn

Join via Zoom
Meeting-ID: 637 6730 0567



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Neuroscience Seminar Series