

Neurobiology 204: Neurophysiology of Central Circuits

Week 6 (March 18 & 30) Perception

This lecture will cover neurophysiological work that has attempted to relate the activity of individual neurons or small populations of neurons to perception. We will discuss methods for quantitatively comparing thresholds and sensitivity of individual neurons and that of a subject. We will also examine a range of approaches that has been taken in trying to correlate neuronal activity with specific perceptions.

The discussion will consider the following paper:

Maier, A., Wilke, M., Aura, C., Zhu, C., Ye, F.Q., Leopold, D.A. (2008) Divergence of fMRI and neural signals in V1 during perceptual suppression in awake monkey. *Nat. Neurosci.* **11**:1192-1200.

Your assignment is to write a commentary on this paper, which examines and contrasts the relationships of BOLD and electrophysiological signals in monkey V1 to perceptual experience under a range of conditions, including some that produce perceptual suppression.