Computation in Neural Systems: Biological Vision

Lecture May 18, 2017
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Cues to depth perception:

Monocular depth cues:

- Size
- Interposition
- Lighting and shadows
- Clarity and elevation
- Perspective
Binocular depth cues:

Convergence

Stereopsis (binocular disparity)
Binocular disparity
The horopter
The horopter and Panum’s fusion area
The Wheatstone stereoscope
The correspondence problem in stereopsis
Neurons tuned for binocular disparity (monkey V1)

Data from Poggio and Talbot, 1981. Spillmann, 1990, p325
Binocular receptive fields of disparity tuned neurons