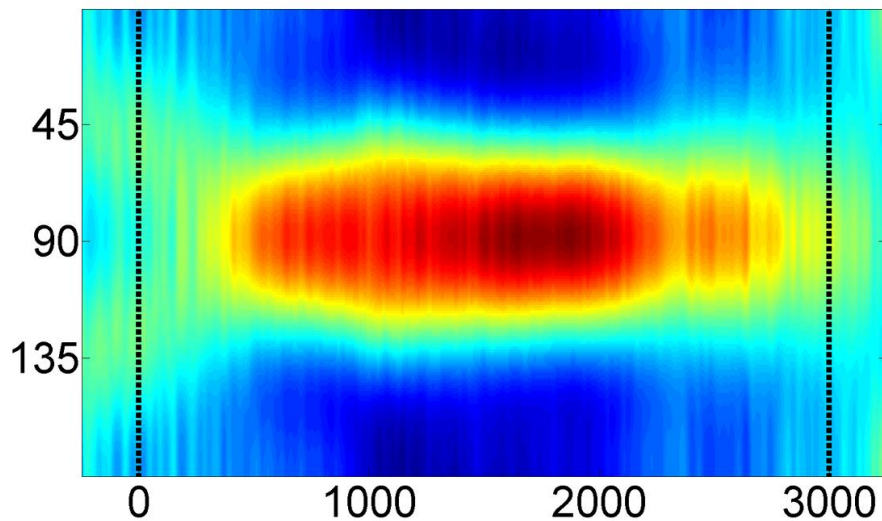
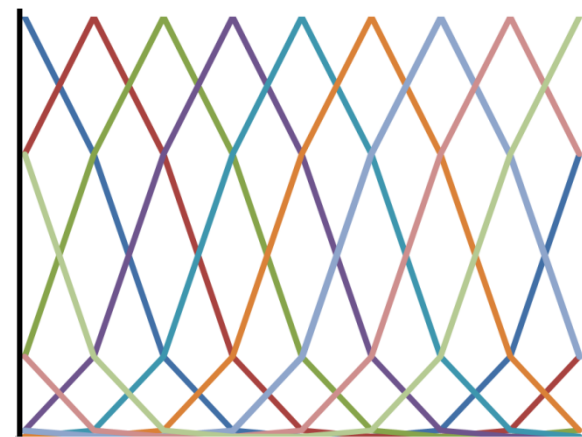
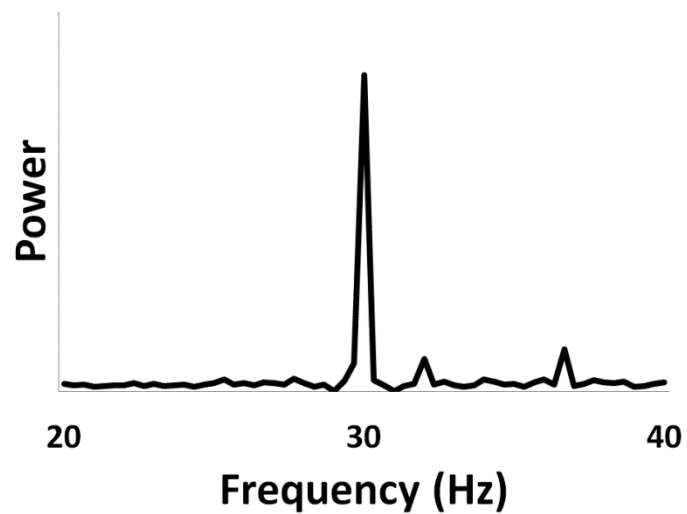
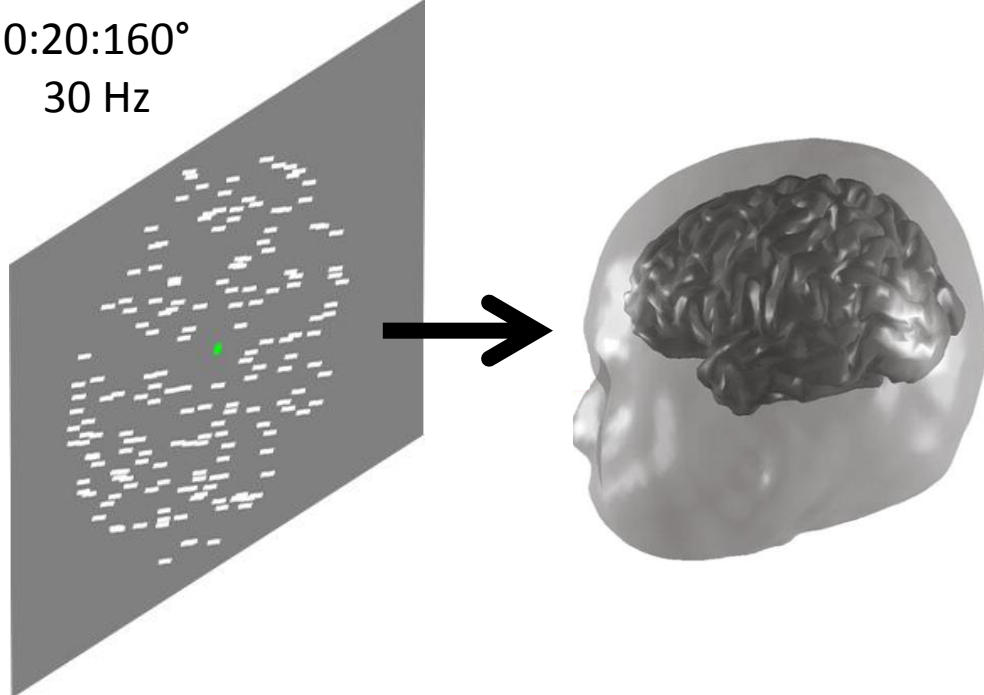


Measuring and evaluating stimulus likelihood from human cortical responses

Edward Ester, Ph.D

Serences Lab

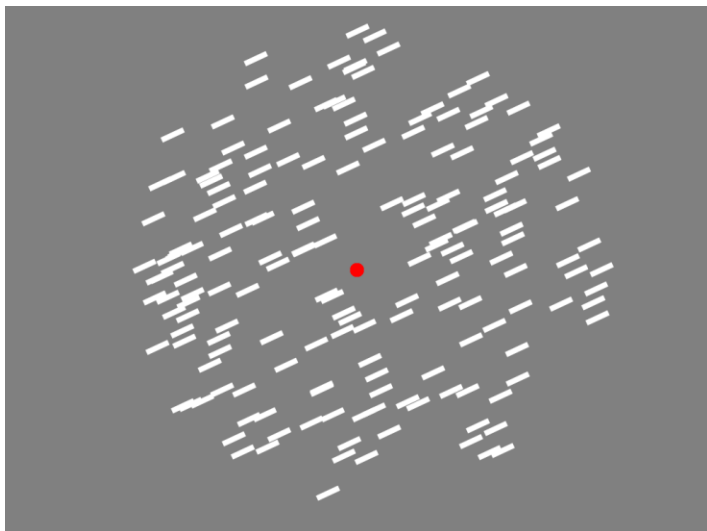
0:20:160°
30 Hz



Orientation Response Profile

Orientation Encoding Model

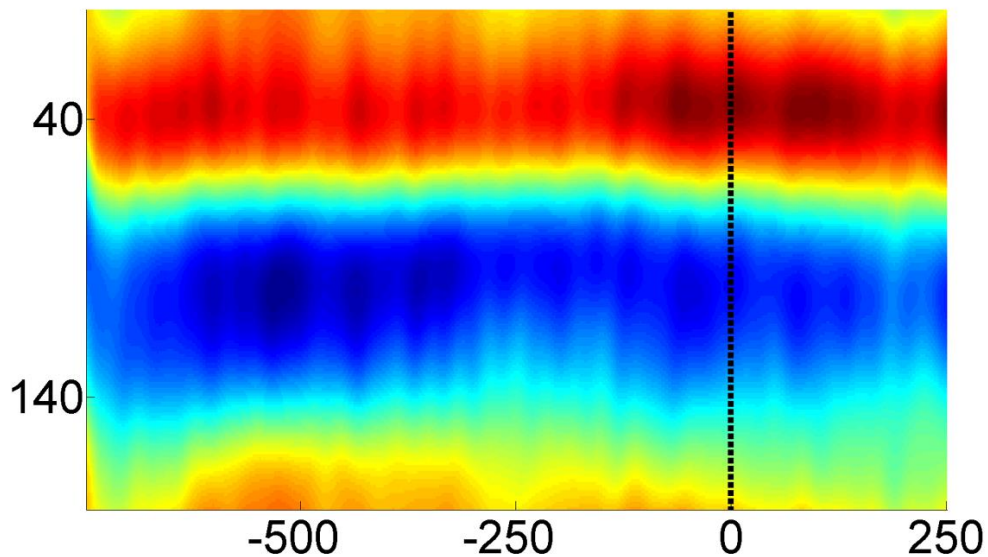
“Validation” Trials



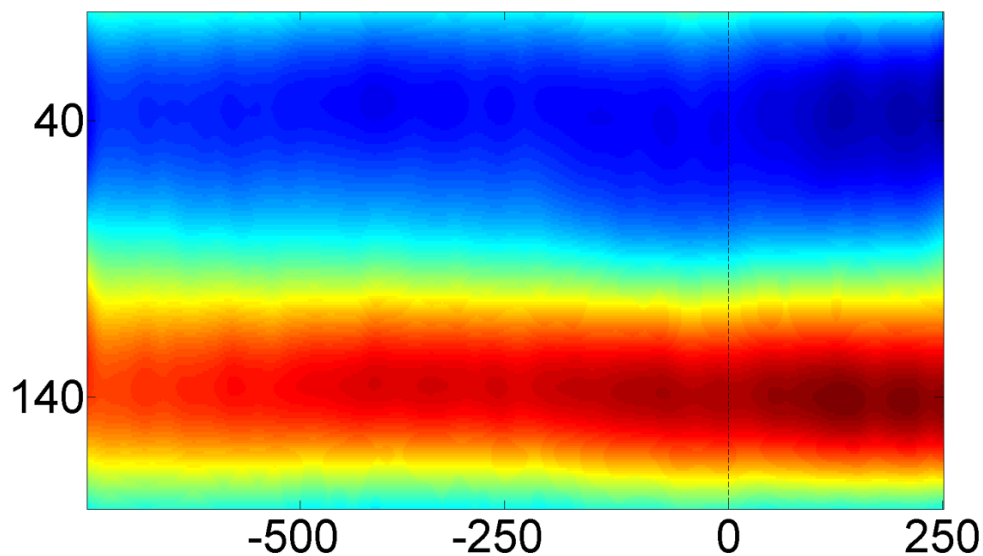
2 “reference” orientations
(40° & 140°)

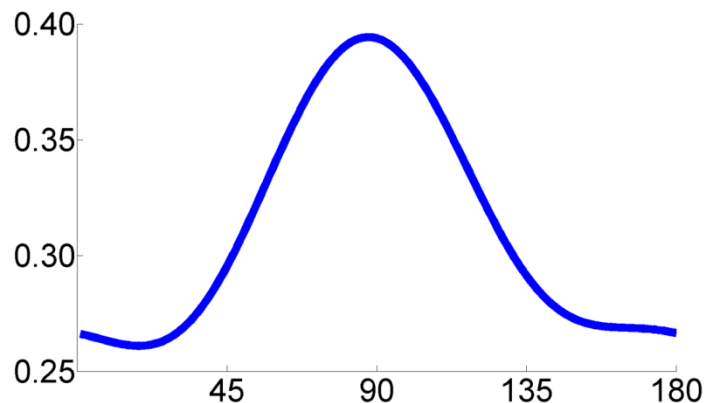
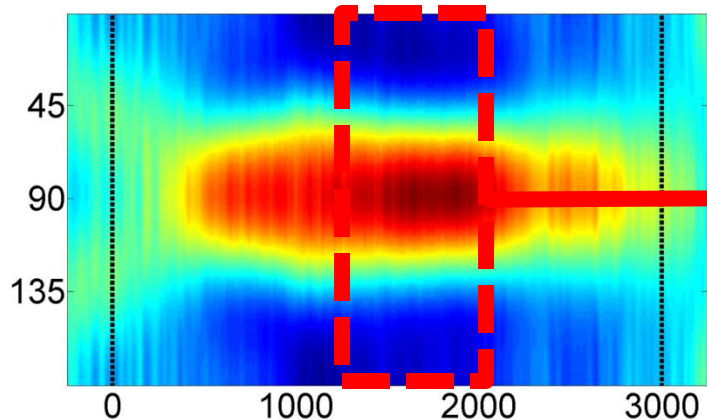
Determine whether actual
orientation is CW or CCW
relative to the nearest
pedestal orientation.

Reference: 40°



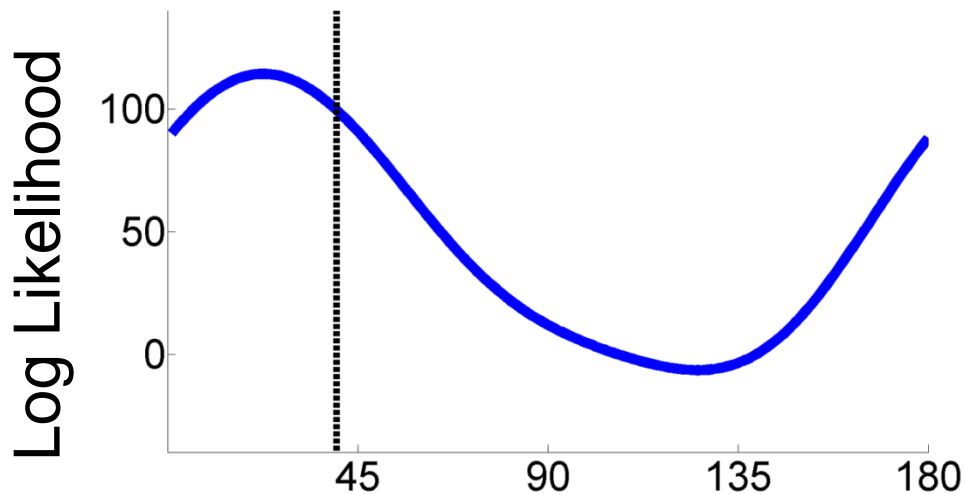
Reference: 140°





$$\log L(\theta) = k \sum_{i=1}^N \cos(\theta - \theta_i) \quad \leftarrow \quad L_i(\theta_0) = p(r|\theta) = \frac{e^{k \cos(\theta_0 - \theta_i)}}{2\pi I_0 k}$$

Reference: 40°



Reference: 140°

