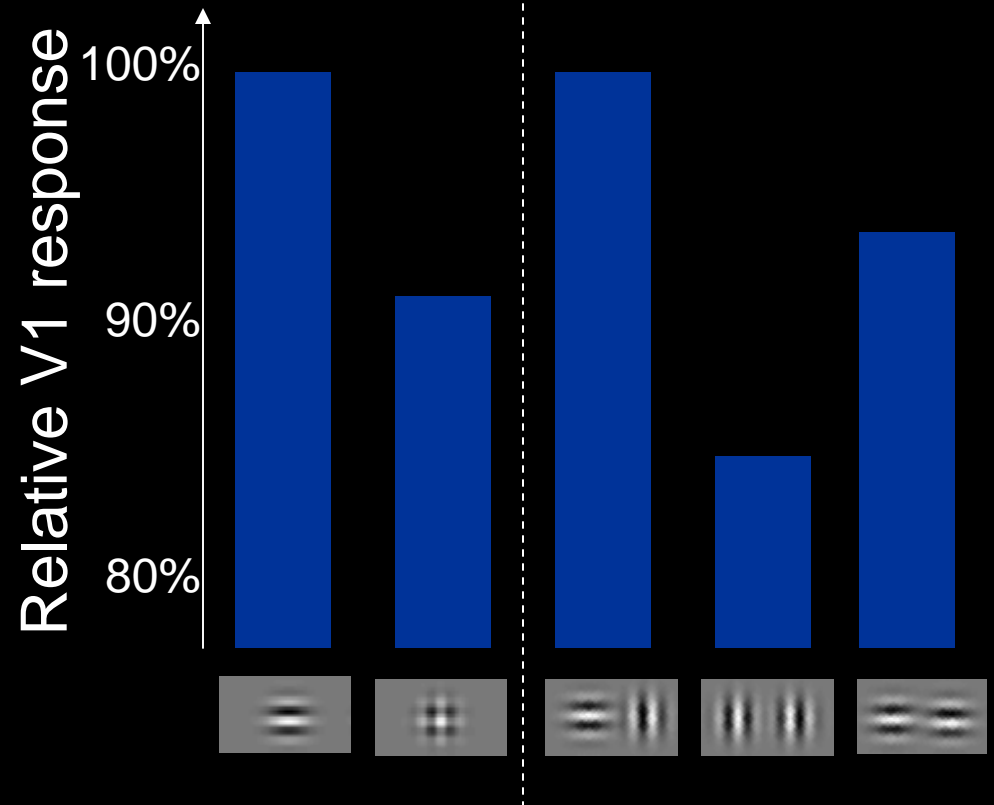
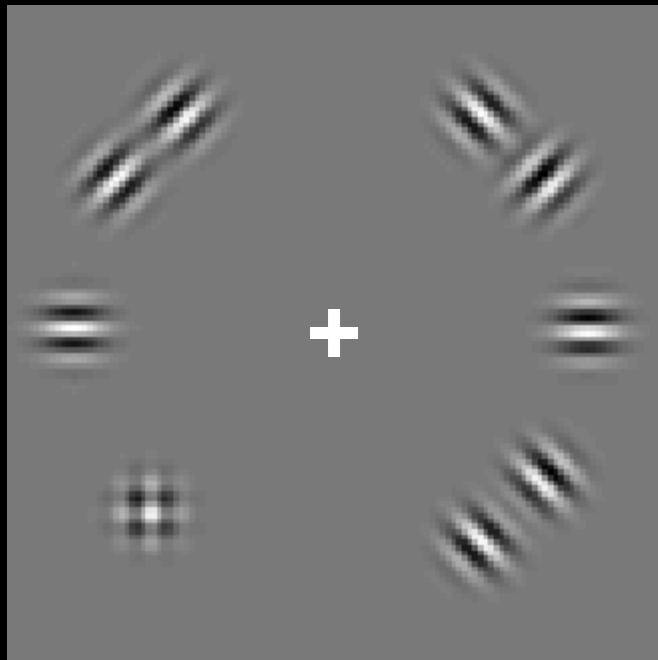


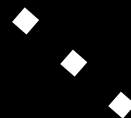
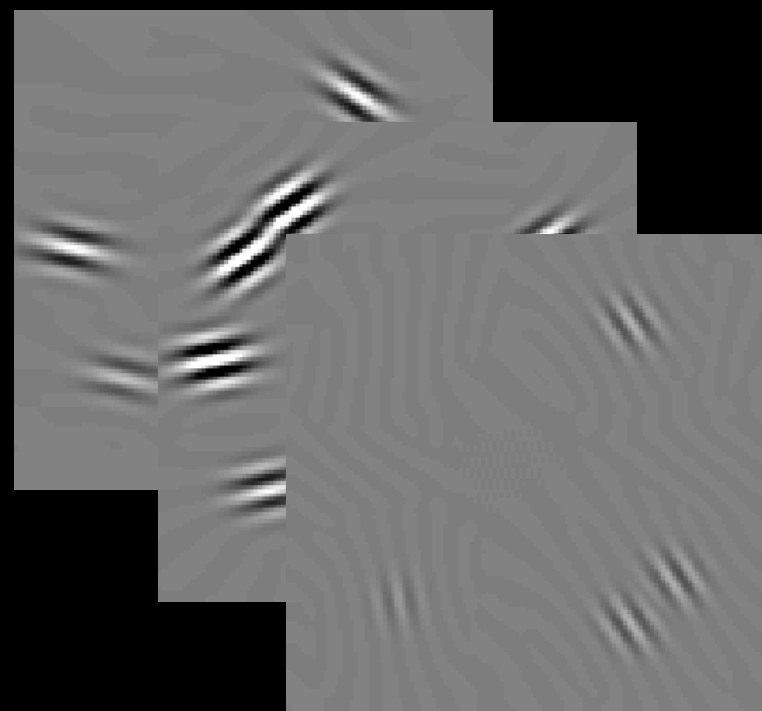
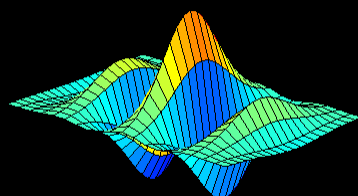
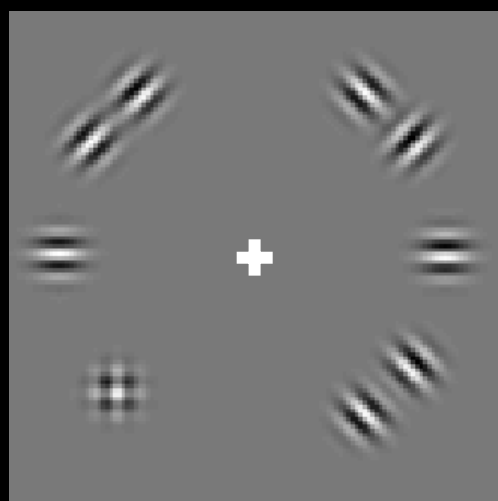
# Feed-forward saliency: V1 response model



# V1 Model – Stage 1: linear filters

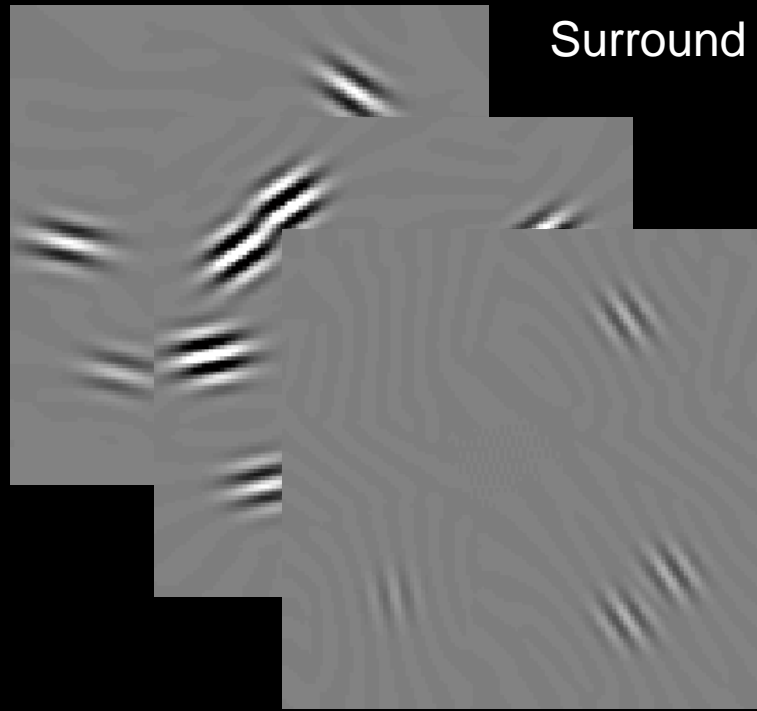
~100 separate filters

Band-pass in spatial frequency & orientation

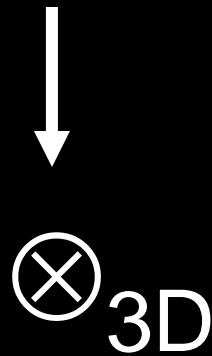


# Stage 2: calculate Exc & Inh fields

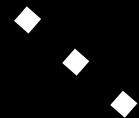
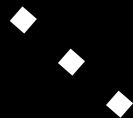
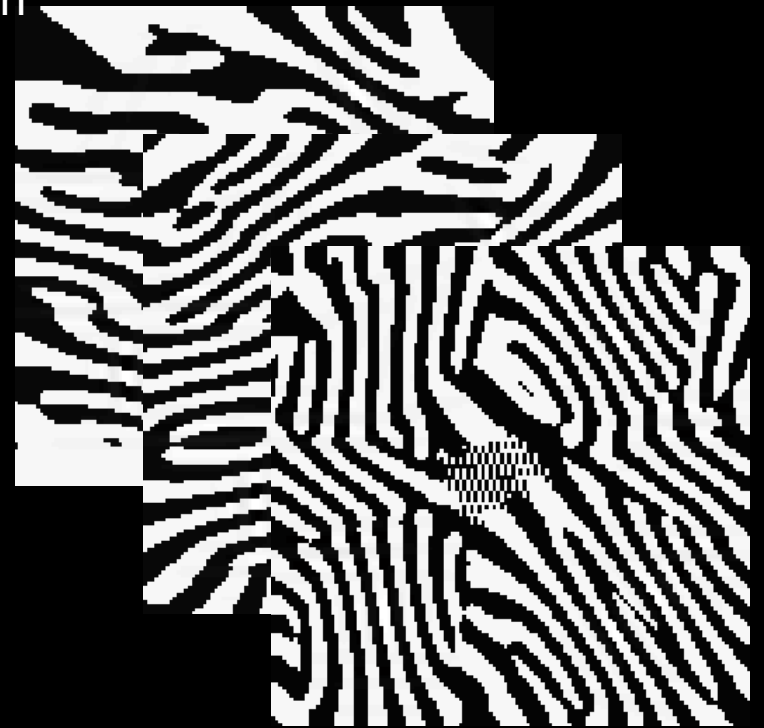
Filters tuned in  $f, \theta$



Cross-orientation inhibition  
Surround suppression

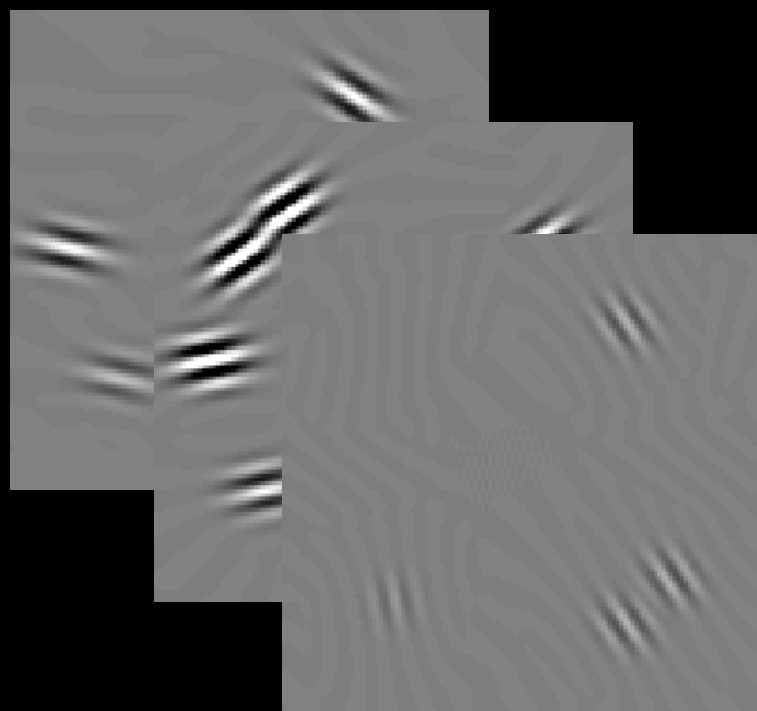


1 bias field for each filter  
(NOT actually binary)



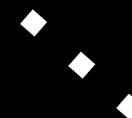
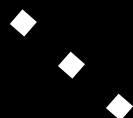
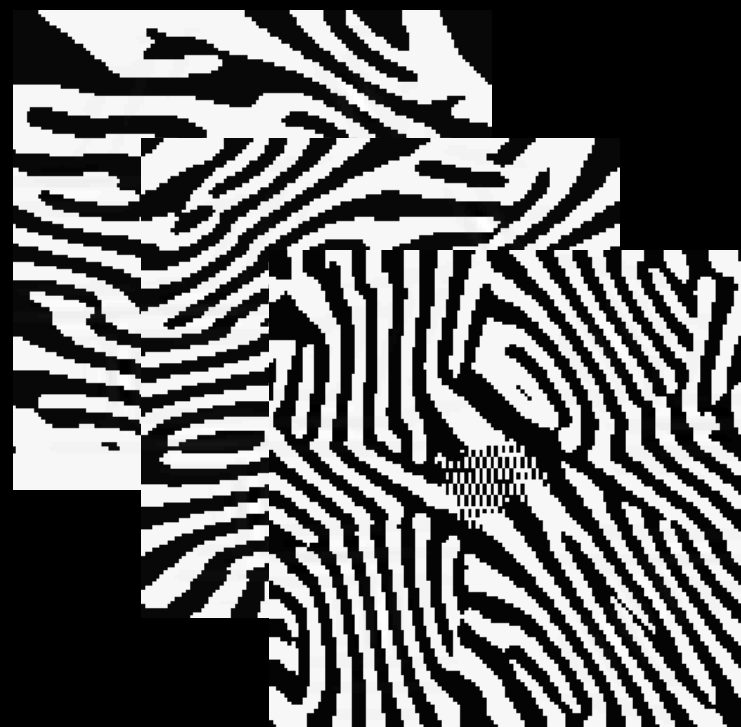
# Stage 3: divisive normalization (inhibition)

Filters tuned in  $f, \theta$



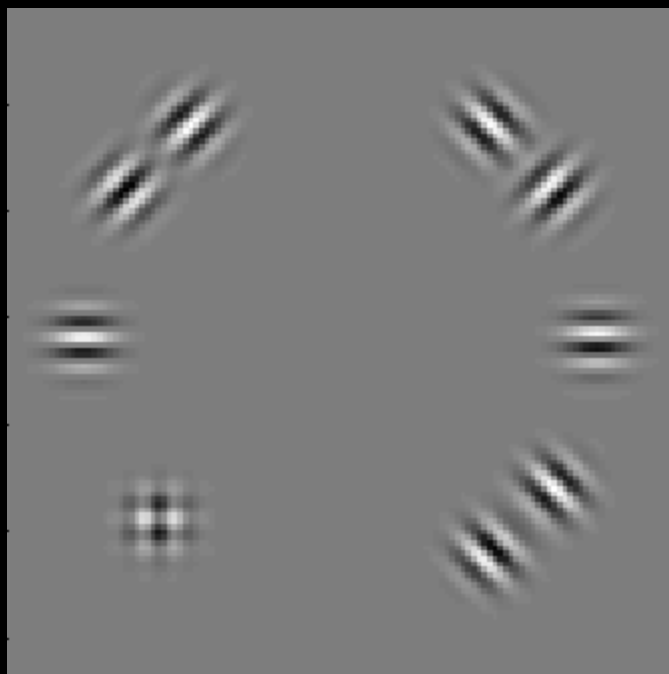
÷

1 bias field for each filter  
(NOT actually binary)

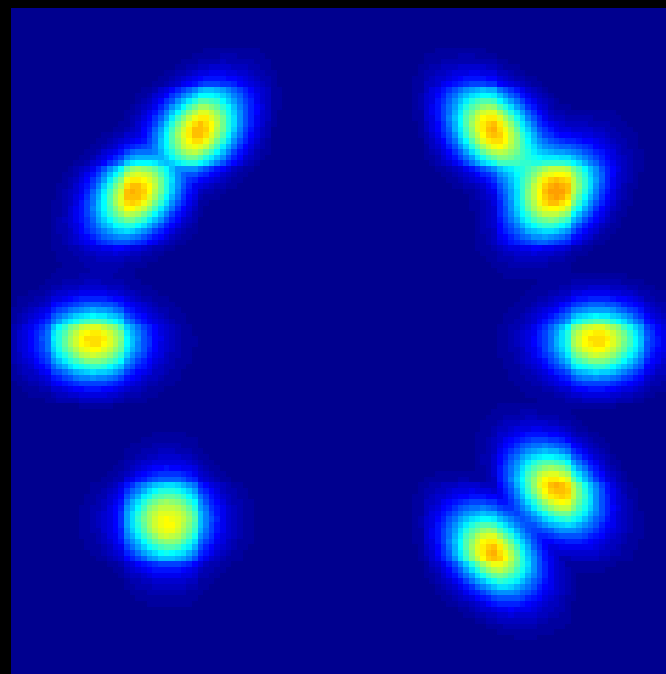


# Stage 4: rectify & combine

Input



Output



# Stage 5, translate to V1 geometry

Image space ( $\pm 7^\circ$ )



Fovea

Cortex space  
(1.0 mm resolution)



Fovea

# Feed-forward saliency: V1 response model

