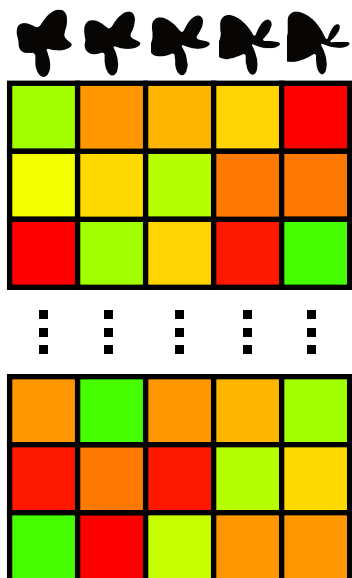


# Model training

fMRI training data

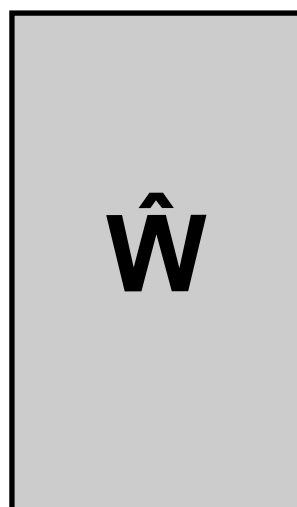
$m$  voxels  $\times$   $n$  shapes



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Weights

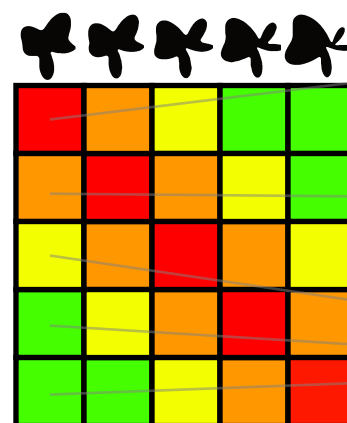
$m$  voxels  $\times$   $k$  channels



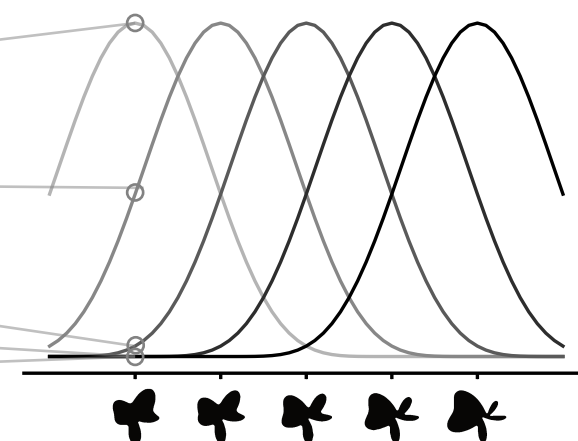
$\times$

Hypothetical  
channel responses

$k$  channels  $\times$   $n$  shapes



Shape channels

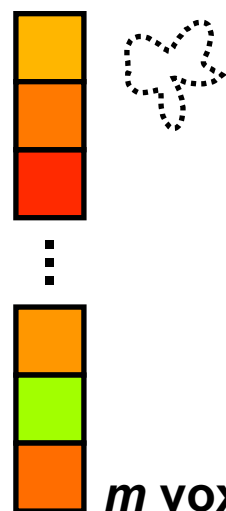


# Reconstruction

$$(\hat{W}^T \hat{W})^{-1} \hat{W}^T$$

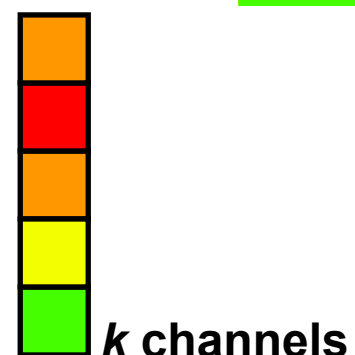
Inverse model

$\times$

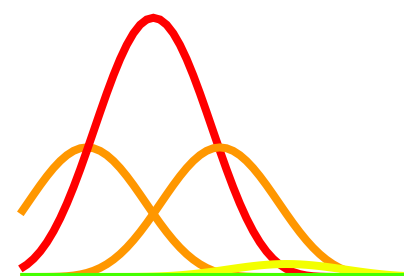


fMRI test  
data

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Decoded channel  
responses



$\Sigma$

