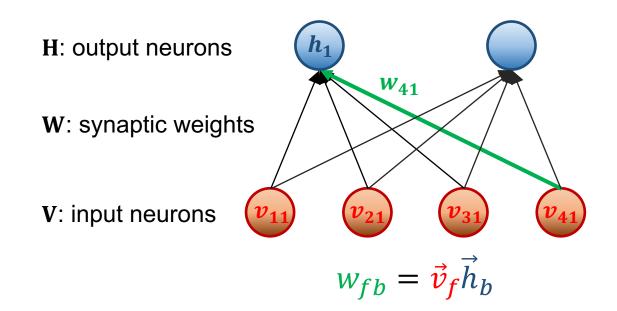
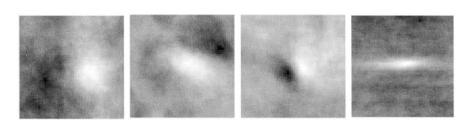
Nonnegative matrix factorization (NMF) $\stackrel{\overrightarrow{v}_f}{\approx} F \stackrel{\overrightarrow{v}_f}{\longleftarrow} \times t \stackrel{\overrightarrow{h}_b}{\longleftarrow} \Leftrightarrow STDPH$

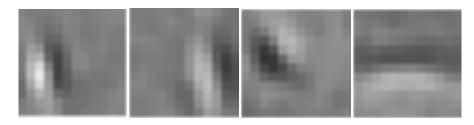
W



V1 Simple Cell Receptive Fields



NSC Approximation of V1 Receptive Fields



STDPH Approximation of V1 Receptive Fields

