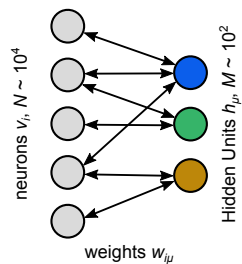


B

cRBM data generation schematic

A
compositional Restricted Boltzmann Machine (cRBM)



Neural activity $\mathbf{v}(t=0)$

HU activity $\mathbf{h}(t=0)$

Extract features from data

$P(\mathbf{h} | \mathbf{v}(t=0))$

Reconstruct data from features

$P(\mathbf{v} | \mathbf{h}(t=0))$

HU activity $\mathbf{h}(t=1)$

$P(\mathbf{h} | \mathbf{v}(t=1))$

$P(\mathbf{v} | \mathbf{h}(t=1))$

Neural activity $\mathbf{v}(t=1)$

Neural activity $\mathbf{v}(t=2)$

Sampling steps

