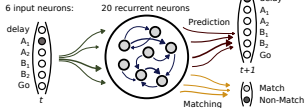
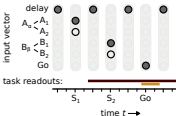


A Recurrent neural network



B Trial structure & tasks



Prediction task:
Predict upcoming input vector

Matching task:
Report $\alpha = \beta$ Match (M) or Non-Match (NM)

Stimuli are correlated:
75% of trials: $\alpha = \beta$

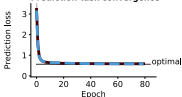
C Network types:

Pred. single: Loss = L_{pred}

Match single: Loss = L_{match}

Dual task: Loss = $L_{\text{pred}} + L_{\text{match}}$

D Prediction task convergence



E Matching task convergence

