neural activity r. prediction $\hat{\mathbf{v}}_{t}$ input **x**₊ 0 D A_{α} 25% B_{α} 100% 75% 100% weights **U** weights **V** Time weights W t+1 C) Network size D) H during training E) L1 during training L1 regularisation 0.1 Cross entropy *H* 0.10 0.05 0.00 entropy *H* 0.5 Cross 0.0

10

Epoch

15

20

15

10

Epoch

20

B) RNN prediction task

A) Trial structure

10

Number of neurons N