

$$x_1 \ x_2 \ x_3 \ x_4 \ \dots \ x_N$$

Stack into page matrix

$$\begin{matrix} x_1 & x_{L+1} & \dots & x_{T-L} \\ x_2 & x_{L+2} & \dots & x_{T-L+1} \\ x_3 & x_{L+3} & \dots & x_{T-L+2} \\ \vdots & \vdots & \ddots & \vdots \\ x_L & x_{2L} & \dots & x_T \end{matrix}$$

Perform SVD

$$\begin{matrix} U_1 & U_2 & \dots & U_L \end{matrix} \quad \Sigma \quad V^T$$

Estimate low rank subspace by
singular value hard thresholding

$$\mathcal{L} = \text{span}(U_1, U_2, \dots, U_r) \subset R^L$$