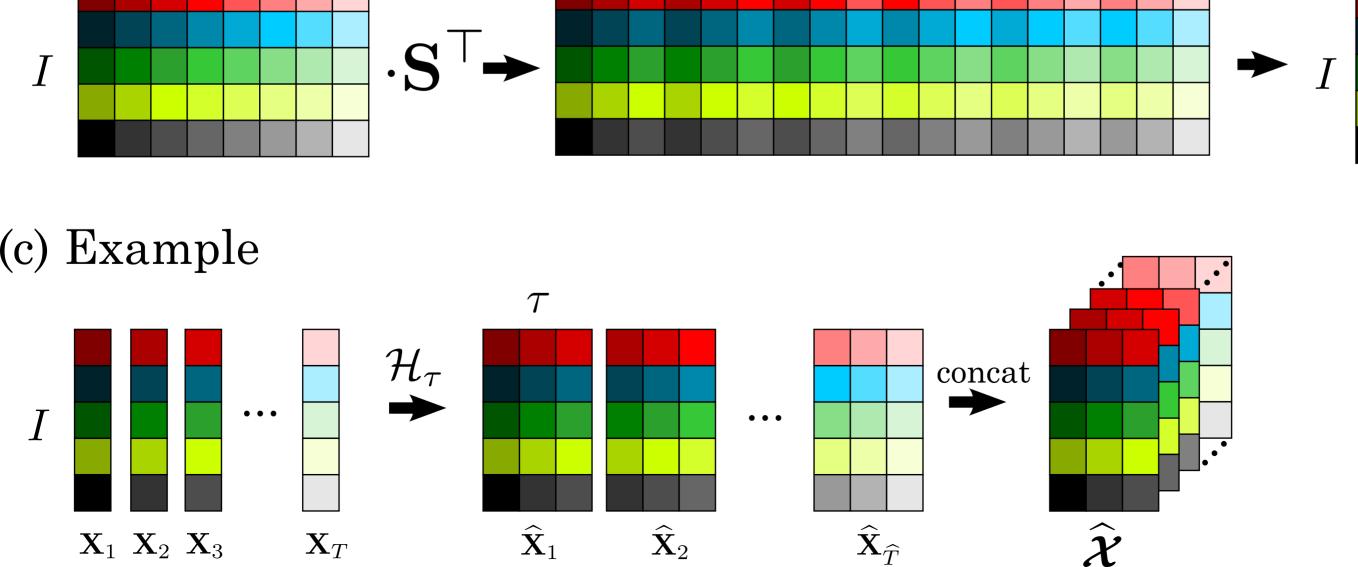
(a) Duplication matrix

$$\mathbf{S}^{\top} = \begin{bmatrix} \mathbf{I}_{\tau} & \mathbf{I}_{\tau} \end{bmatrix} \boldsymbol{\tau}$$

(b) Single way delay-embedding of multiple time-series



 $\tau(T - \tau + 1) = \tau \widehat{T}$