

STATES $i = 1, \dots, n$

$P_{i \rightarrow j}$ TRANSITION PROBABILITIES

$$\begin{bmatrix} p_i(t) \end{bmatrix} = M \cdot \begin{bmatrix} p_i(t-1) \\ \vdots \end{bmatrix}$$

↑
TRANSITION MATRIX

MEAN FIRST PASSAGE TIME FROM i TO j

$T_{i \rightarrow j}$

$$\begin{bmatrix} -1 \\ -1 \\ -1 \\ \vdots \end{bmatrix} = (M_{-j} - I) \cdot \begin{bmatrix} T_{1j} \\ \vdots \\ T_{nj} \end{bmatrix}$$