GIVEN A FINITE TIMEREVERSIBLE
IRREDUCIBLE MARKOV CHAIN, TRANS. MATRIX P

USE THE STATES OF THE CHAIN AS NODES.

DEFINE THE WEIGHTS AS $w(i,j) = x_i P_{ij}$

$$w(i,j) = w(j,i) = x_j P_{ji}$$

IN THE RANDOM WALK THE PROB. TO GO FROM i TO j

$$\frac{w(i,j)}{\sum_k w(i,k)} = \frac{x_i P_{ij}}{\sum_k x_i P_{ik}} = \frac{x_i P_{ij}}{x_i} = P_{ij}$$