



trail plan

$$\rho = (1, 3, 4, 2, 3, 1)$$

probability robot visits 2nd node in planned trail

$$\pi[S_2(\rho) = 1] = \omega(1, 3)\omega(3, 4)$$

indices of trail for planned visits to node 3

$$\theta_3(\rho) = (1, 4)$$

probability robot visits node 3 t times

$$\pi[T_3(\rho) = t] = \begin{cases} 1 - \omega(1, 3) & t = 0 \\ \omega(1, 3)[1 - \omega(3, 4)\omega(4, 2)\omega(2, 3)] & t = 1 \\ \omega(1, 3)\omega(3, 4)\omega(4, 2)\omega(2, 3) & t = 2 \end{cases}$$