

Past Incidence

$$I(t, j) \sim \text{Pois} \left(\sum_i^n \left(p_{i \rightarrow j} \left(R_{t,i} \sum_{s=0}^t I_{t-s,i} \omega_s \right) \right) \right)$$

Probability of movement

Serial Interval

Expected number of cases at i at t