Google PageRank

$$\exists A \quad has \quad citations \quad from \quad T_1, ..., T_n$$

$$d \approx 0.85 | d \in (0, 1)$$

$$PR(A) = (1 - d) + d \sum_{i=1}^{n} \frac{PR(T_i)}{C(T_i)}$$

$$R(u) = c \sum_{v \in B_u} \frac{R(v)}{N_v}$$

$$if | B_u | = 1, \exists v_\sigma \in B_u, \quad then \quad u \in F_{v_\sigma}, R_u = \frac{cR_{v_\sigma}}{|F_{v_\sigma}|}$$

$$A_{u,v} = \begin{cases} \frac{1}{|F_u|}, u \to v \\ 0, u \nrightarrow v \end{cases}$$

$$R_i = cA_{u,v}R_{i-1}$$

$$R^{'}(u) = c \sum_{v \in B_u} \frac{R^{'}(v)}{N_v} + c\mathrm{E}(u)$$

$$R_i^{'} = c(A + E \times 1)R_{i-1}^{'}$$

Markov Chains