propagation de-lay

submodular ??????????? ?? influence

ef-fi-ciency

??

??

??

$\mathcal{G} = (\mathcal{V}, \mathcal{E})$ $\mathcal{G}\mathcal{V}\mathcal{E}$

$\mathcal{H} = (\mathcal{V}, \mathcal{Z})$ $\mathcal{H}\mathcal{G}??\mathcal{V}\mathcal{Z}$

n $\mathcal{G}\mathcal{H}$

m $\mathcal{G}$

k

$p_{u,v}^{\mathcal{G}}$ uv

$I(S)$ S

$RR(v)$ v??

$eff_{u,v}$ uv??

$T(S)$ $S\mathcal{G}$??

$T'(S)$ $S\mathcal{H}$??

$\mathcal{G} = (\mathcal{V}, \mathcal{E})\mathcal{V}\mathcal{E}e_{u,v} \in \mathcal{E}p_{u,v}^{\mathcal{G}}uvp_{u,v}^{\mathcal{G}}uv\mathcal{G}p_{u,v}uv$

$S \subseteq \mathcal{V}S_t t \geq 0 t = 0 S_0 = S t t - 1 u \in N^{in}(v) \cap (S_{t-1} \setminus S_{t-2}) v \in \mathcal{V} \setminus S_{t-1}vp_{u,v}ut - 1uttS_t = S_{t-1}$

??$\mathcal{G}S = \{v_1\}$??$p_{u,v}^{\mathcal{G}}t = 0v_1v_1t = 1v_1t = 0\mathcal{G}v_1v_2v_1v_2v_2t = 1S_1 = \{v_1, v_2\}t = 2v_2v_3v_4v_5v_6$??$v_3v_5S_2 = \{v_1, v_2, v_3, v_5\}t = 3I(S)S\mathcal{G}I(S) = 4$

$SE_{\mathcal{G}}[I(S)]\mathcal{G}\mathcal{G}kE_{\mathcal{G}}[I(S)]k$????

??$\mathcal{G}k = 1$??$k = 1v_1E_{\mathcal{G}}[I(\{v_1\})] = 1 + 1 + 4 \times 0.8 = 5.2\{v_2\}E_{\mathcal{G}}[I(\{v_2\})] = 1 + 4 \times 0.8 = 4.2E_{\mathcal{G}}[I(\{v_3\})] = $

$E_{\mathcal{G}}[I(\{v_4\})] = $

$E_{\mathcal{G}}[I(\{v_5\})] = $

$E_{\mathcal{G}}[I(\{v_6\})] = 1\mathcal{G}k = 1S^* = \{v_1\}$

$\mathcal{G}k = 1\mathcal{G}k > 1E_{\mathcal{G}}[I(S)]uSf(S \cup \{u\}) \geq f(S)uS \subseteq Wf(S \cup \{u\}) - f(S) \geq f(W \cup \{u\}) - f(W)S = \emptyset f(S \cup \{u\}) - f(S)uSku$

$$u = \arg\max_{w \in V \setminus S} (E_{\mathcal{G}}[I(S \cup w)] - E_{\mathcal{G}}[I(S)])$$

(1)

$1 -$