lecture

October 15, 2025

1 HC

beat greedy baseline of $\frac{1}{3} - \alpha px$. this is average linkage or random

this alg will give $\geq .336 OPT$

$$\sum_{ij \in E} w_{ij} \left(n - |T_{ij}| \right) = \sum_{ij \in E} w_{ij} \sum_{k \neq i,j} \mathbb{1}\{\text{k not aleaf of } T_{ij}\} \tag{1}$$

consider

$$y_{ijk} = w_{ij} \mathbb{1}\{\text{k not aleaf of } T_{ij}\} \tag{2}$$

it only atkes on values of $w_{ij}, 0$

$$y_{ij} = \sum_{k \neq i,j} y_{ijk} \tag{3}$$