



An energy / potential is called **submodular**
iff for every pair of variables :

$$E(0, 0, \bar{x}_{ij}) + E(1, 1, \bar{x}_{ij}) \leq E(0, 1, \bar{x}_{ij}) + E(1, 0, \bar{x}_{ij})$$

$$\arg \min_{\mathbf{x}} \sum_{i \in \mathcal{V}} c_{it}(1 - x_i) + \sum_{i \in \mathcal{V}} c_{si}x_i + \sum_{i,j \in \mathcal{E}} c_{ij}(1 - x_i)x_j$$

all terms submodular