$$V_i - \frac{1}{d_i} \sum_{j:(i,j)\in E} V_j = 0$$

$$L_{ij} = \begin{cases} 1 & i = j \\ -\frac{1}{d_i} & e_{ij} \in E \\ 0 & \text{else} \end{cases}$$

$$LV = 0 \quad \rightarrow \quad \binom{L}{A} V = b$$

$$a_{ij} = \begin{cases} 1 & V_j \text{ is anchor} \\ 0 & \text{else} \end{cases}$$

$$b_K = \begin{cases} (0,0,0) & K \leq m \\ V_{S_{K-m}} & m \leq K \leq m + M \end{cases}$$

LEAST SQUARE

$$\binom{L}{A} V \approx b$$

$$\min_{V \in R^{m \times 3}} \left\| \binom{L}{A} V - b \right\|_2^2 = \|LV\|_2^2 + \sum_{V_i \in A} \|V_i - b_i\|_2^2$$