

# Conference allocation

Solve the following optimization problem

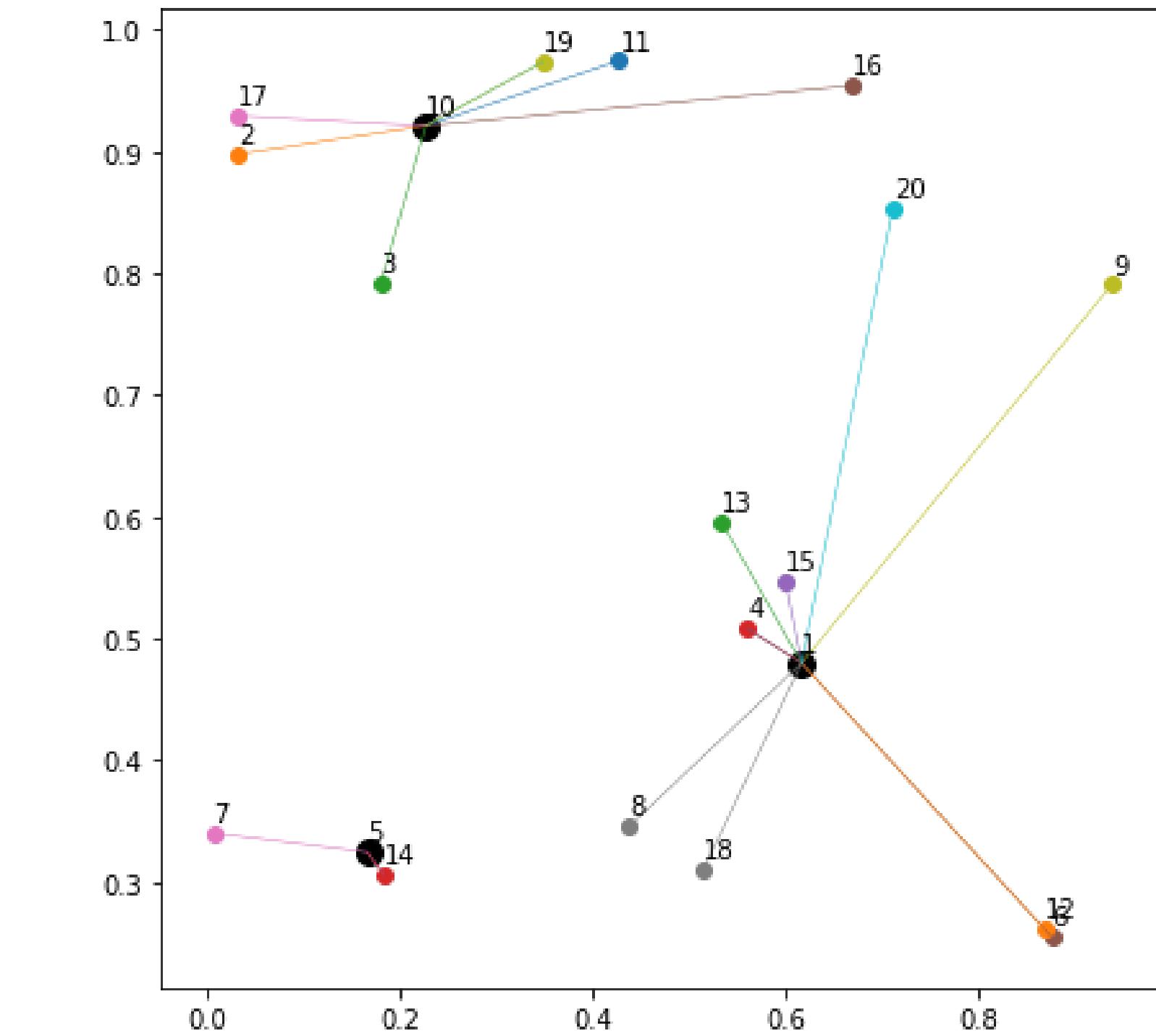
We are about to organize a conference. The participants are going to attend the conference from different cities. The traditional approach is inviting all people to one city. Alternatively, we can ask the participant to gather in different cities ( $N_c$ ) and then do the teleconference. How to select the tele-conf cities to minimize the traveling distances.

$$\min_{i,j} \sum_{i,j} L_{i,j} D_{i,j}$$

$$\forall i \quad \sum_{j \neq i} L_{i,j} = 1$$

$$\sum_i U_i = N_c$$

$$\forall i, j \quad L_{i,j} \leq U_i + U_j$$



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