

# Otimização do monitoramento de ativos

$$\min f_1 = \sum_{i=1}^n \sum_{j=1}^m d_{ij} x_{ij}$$

~~$$\min f_2 = \max_k \left( \sum_{i=1}^n h_{ik} \right) = \min_k \left( \sum_{i=1}^n h_{ik} \right)$$~~



s.a:

$$\left\{ \begin{array}{l} \sum_{j=1}^m y_{jk} = 1, \quad \forall k \in \{1, \dots, s\} \\ \sum_{j=1}^m x_{ij} = 1, \quad \forall i \in \{1, \dots, n\} \\ x_{ij} \leq y_{jk}, \quad \forall i \in \{1, \dots, n\}, \forall j \in \{1, \dots, m\}, \forall k \in \{1, \dots, s\} \\ \sum_{k=1}^s h_{ik} = 1, \quad \forall i \in \{1, \dots, n\} \\ h_{ik} \leq (x_{ij} + y_{jk})/2, \quad \forall i \in \{1, \dots, n\}, \forall j \in \{1, \dots, m\}, \forall k \in \{1, \dots, s\} \\ \sum_{i=1}^n h_{ik} \geq \eta \frac{n}{s}, \quad \forall k \in \{1, \dots, s\} \end{array} \right.$$