

MOGPL projet

(choisir ou non l'arc) a_n^k

3.1) PL: $\min t^*(P) = \sum_{(i,j) \in P} t_{i,j}^* x_{i,j}^k$ $\forall t_{i,j}^* \leq 1$ et ≥ 0

directement

$\forall k$ scénario $\left\{ \begin{array}{l} t^*(P) \geq \sum t_{i,j}^k a_{i,j}^k \forall i \text{ relié à } s \\ t^*(P) \geq \sum t_{i,j}^k a_{i,j}^k \forall j \text{ relié à } i \text{ et } i \\ \sum t_{i,j}^k a_{i,j}^k - \sum t_{j,i}^k a_{j,i}^k = 0 \text{ (conservation)} \end{array} \right.$

3.2) figure 1: à coder

$\min t^*(P) = \sum_{(i,j) \in P} t_{i,j}^* a_n^k$

$t^*(P) \geq 4 t_{s_0, s_1}^1 + 5 t_{s_0, s_2}^1 \quad | \quad 4 a_0^1 + 5 a_1^1 - 3 a_2^1 - 5 a_3^1 = 0$

$t^*(P) \geq 3 t_{s_1, s_2}^2 + 1 t_{s_1, s_3}^2 \quad | \quad 3 a_1^2 + 1 a_2^2 - 2 a_3^2 - 2 a_4^2 = 0$

$t^*(P) \geq 1 t_{s_2, s_3}^1 + 7 t_{s_2, s_4}^1 + 2 t_{s_3, s_4}^1 + 2 t_{s_3, s_5}^1 + 5 t_{s_4, s_5}^1 + 2 t_{s_4, s_6}^1$

$t^*(P) \geq 4 t_{s_2, s_5}^2 + 5 t_{s_3, s_5}^2 + 2 t_{s_4, s_5}^2 + 1 t_{s_5, s_6}^2 + 1 t_{s_5, s_7}^2 + 7 t_{s_6, s_7}^2$

figure 2: idem

$\min t^*(P) = \sum_{(i,j) \in P} t_{i,j}^* a_n^k$

$t^*(P) \geq 5 t_{s_0, s_1}^1 + 10 t_{s_0, s_2}^1 + 2 t_{s_0, s_3}^1 \quad | \quad 5 a_0^1 + 10 a_1^1 + 2 a_2^1 - 1 a_3^1 - 1 a_4^1 = 0$

$t^*(P) \geq 3 t_{s_1, s_2}^2 + 4 t_{s_1, s_3}^2 + 6 t_{s_1, s_4}^2 \quad | \quad 3 a_1^2 + 4 a_2^2 + 6 a_3^2 - 1 a_4^2 - 1 a_5^2 = 0$

$t^*(P) \geq 4 t_{s_2, s_3}^1 + 4 t_{s_2, s_4}^1 + 1 t_{s_3, s_4}^1 + 3 t_{s_3, s_5}^1 + 1 t_{s_4, s_5}^1 + 1 t_{s_4, s_6}^1 + 3 t_{s_5, s_6}^1$

$t^*(P) \geq 6 t_{s_2, s_6}^2 + 2 t_{s_3, s_6}^2 + 3 t_{s_4, s_6}^2 + 1 t_{s_5, s_6}^2 + 2 t_{s_6, s_7}^2 + 4 t_{s_6, s_8}^2 + 5 t_{s_7, s_8}^2$