Linear programs, duality and relaxation

1

Given a bipartite graph $G = (V, E)$. For each edge $e \in E$ we define x_e to be whether or not we include this edge in the matching so we have:

$x_e \in \{0, 1\}$ $(\forall e \in E)$

$\sum_{e \text{ incident to } v} x_e \leq 1$ $(\forall v \in V)$

$\sum_{e \in E} x_e \to \max$

2

$y_v \geq 0$

$y_u + y_v \geq 1$ $(\forall uv \in E)$

$\sum_{v \in V} y_v \to \min$

3

`set-cover.mzn` and `set-cover-float.mzn` are included. Rounding files are available in `Rounding` directory.