

Fonction objectif:

- $max(\sum_{a \in A} \sum_{l=0}^{h-H(a)-1} \sum_{c=0}^{w-W(a)-1} w_{a,l,c} * y_{a,l,c})$

Variables:

- $y_{a,l,c} = \begin{cases} 1 & \text{si l'annonceur est placé} \\ 0 & \text{sinon.} \end{cases}$
- $w_{a,l,c} = min(M(a); \sum_{i=l}^{l+H(a)-1} \sum_{j=c}^{c+W(a)-1} \omega_{i,j})$
- $x_{a,l,c} = \begin{cases} 1 & \text{si la case (l,c) est attribuée à a} \\ 0 & \text{sinon.} \end{cases}$

Contraintes:

- $\sum_{l=0}^{h-H(a)-1} \sum_{c=0}^{w-W(a)-1} y_{a,l,c} \leq 1, \forall a \in A$
- $\sum_{a \in A} x_{a,l,c} \leq 1, \forall \begin{cases} l \in \llbracket 0; h-1 \rrbracket \\ c \in \llbracket 0; w-1 \rrbracket \end{cases}$
- $y_{a,l,c} \leq x_{a,l+i,c+j}, \forall \begin{cases} l \in \llbracket 0; h-H(a)-1 \rrbracket \\ c \in \llbracket 0; w-W(a)-1 \rrbracket \\ i \in \llbracket 0; H(a)-1 \rrbracket \\ j \in \llbracket 0; W(a)-1 \rrbracket \end{cases}$
- $a_{a,l,c} \leq \sum_{i=0}^{min(l;H(a))} \sum_{j=0}^{min(c;W(a))} y_{a,l-i,c-j}, \forall \begin{cases} a \in A \\ l \in \llbracket 0; h-1 \rrbracket \\ c \in \llbracket 0; w-1 \rrbracket \end{cases}$