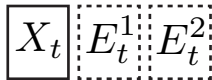


Initial graph
at time t .



Matrix of data
attributes, possibly
concatenated with
information about
graph



Statistical model
outputs probability of
matching for each
node

$$\begin{bmatrix} .9 \\ .7 \\ .8 \\ .1 \\ .2 \end{bmatrix}$$

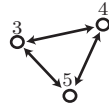
$$\begin{bmatrix} 1 \\ 1 \\ 1 \\ 0 \\ 0 \end{bmatrix}$$

Probabilities
are thresholded.
Nodes with 1
are selected to
be cleared.

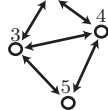


Integer programming
solver finds a
maximal matching
among selected nodes

$\{1, 2\}$



$t+1$



Nodes are cleared
according to solution.
Model is allowed to
evolve to next period,
and the next iteration
starts.