Admissible : $C_f(u,v) > 0$ and $h(u) = h(v) + 1$

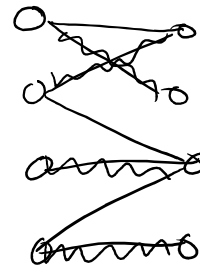Discharge(u):
  Push along all admissible (u,v)

Admissible graph is Acyclic

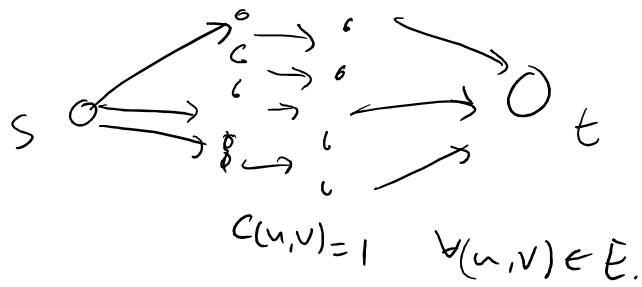Applications of Max flow :

Max bipartite matching.

  Matching: set of edgs:

  Max matching:
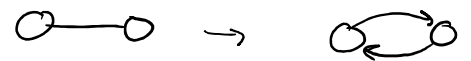 matching w/
  max cardinality.

Construct flow network:

$$C(u,v) = 1 \quad \forall (u,v) \in E.$$

Edge-disjoint paths:

$$C(u,v) = 1$$

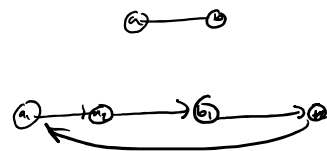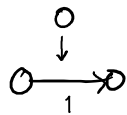(for undirected:

Node-Disjoint:

expand each node:

Image Segmentation

image is pixel graph   (adj. pixels connected)

undir.

likelihoods to be in fg/bg $\forall$ pixes

a_i / b_i

Separation penalty $\forall$ edge

P_{ij}

min cut.