

Sep 5, 2014

GALE - SHAPLEY ALSO.

Overall framework:

- (0) Everyone is free
 - (1) Women make proposals (diff. from book.)
 - (2) End up with n married couples
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Initial state

- (0) Everyone is free
 - (1) Pick a free woman w
Q: Who should w propose to?
A: m highest in L_w
 - (2) w proposes to m
Q: What should m do?
Case 1: m could accept. (Problem: m could later get a better proposal)
Case 2: m reject (Problem: This might be the best proposal for m)
Case 3: (m, w) get engaged.
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General state:

- (0) If all n men & n women are engaged; get them married & stop.
- (1) Not all women are engaged
→ Pick any free woman w .
Q: Who should w propose to?
A: Most preferred man m that she has not proposed to yet.
- (2) w proposes to m

Q: What should m do?

Case 1: m is free

→ (m, w) get engaged

Case 2: m is engaged (m, w') are engaged

Case 2.1: $w' > w$ in L_m

m declines w' 's proposal (status unchanged)

Case 2.2: $w > w'$ in L_m

(m, w) get engaged

w' ~~rem~~ is free