

1. each S_i crosses 1 each day
so NM crosses.

2. Invariant: $\forall S_i$ S_i rejected by U_i

$\longrightarrow U_i$ has a better suitor.

if at some day U_i gets $h_i \longrightarrow$ best
 h_i will remain and rest go home.

3. Proof by \times . if S_i gets rejected
by $\forall U \longrightarrow$ shortage of $S \longrightarrow S \neg$ rejected. \times

4. ~~$\frac{1}{2} U_i, \frac{1}{2} U_i, \frac{1}{2} U_i, \frac{1}{2} U_i$~~ \checkmark

5. \checkmark

6. assume for \times that $S_i - U_i$ is range .

Case 1. S_i didn't apply

Case 2. U_i rejected.

7. by WOP first day of U_{opt} rejection

