



& GAMECOCK MATH CLUB

Stable Matchings and Their Applications

by Garner Cochran USC Graduate Student



Garner Cochran

In 2012, the Nobel Prize in Economics was given to Lloyd Shapely and Alvin Roth for their work on stable matchings and their applications to real world problems. Consider a group of men and a group of women, where each person has a preference list for all of the people they want to date. A stable matching is an arrangement of marriages where everyone is satisfied with their mate. You will have a chance to experiment with algorithms to obtain such a matching. We will talk about one algorithm used today to assign medical residents to hospitals, students to schools, and organs to transplantees. While difficulties and complications may arise in real world situation, we will speak of how these problems may be solved.

Garner Cochran is a second year graduate student in mathematics at the University of South Carolina. His research interests include graph theory and combinatorics. \acute{E} va Czabarka is his advisor.

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Event supported in part by Residence Hall Association

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