NPTEL Video Course - Special Lecture Series - ACM Summer School on Algorithmic Game Theory

Subject Co-ordinator - Prof. Meghana Nasre

Co-ordinating Institute - IIT - Madras

Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable

Lecture 1 - Introduction to Stable Matchings
Lecture 2 - Men-Optimality of the Men-Proposing Gale-Shapley Algorithm
Lecture 3 - GS
Lecture 4 - GS
Lecture 5 - The Hospital Residents Problem
Lecture 6 - Popular Matchings in the stable marriage problem
Lecture 7 - Popularity in the House Allocation Problem - 1
Lecture 8 - Popularity in the House Allocation Problem - 2
Lecture 9 - Strategic Behavior in Popular Matchings
Lecture 10 - Stable Roommates
Lecture 11 - An Introduction to Voting
Lecture 12 - The Game of Trust - Nicky Case's Interactive Essay
Lecture 13 - Arrow's Theorem
Lecture 14 - Gibbard-Satterethwaite Theorem
Lecture 15 - Domain Restrictions and Multiwinner Elections
Lecture 16 - Incentive Design in Crowdsourcing Applications
Lecture 17 - Adversarial Approaches in Deep Learning - Part 1
Lecture 18 - Adversarial Approaches in Deep Learning - Part 2
Lecture 19 - Algorithmic for Computing Market Equilibrium
Lecture 20 - Tournament Fixing and Superkings
Lecture 21 - Tournament Fixing Parameterized by FAS
Lecture 22 - Tournament Fixing with Bribery
Lecture 23 - An Introduction to Cake-Cutting
Lecture 24 - Two Algorithms for Finding Proportional Allocations
Lecture 25 - Envy-Freenes and Approximate EF
Lecture 26 - Sperner's Lemma and Applications
Lecture 27 - Cake Cutting with a Secret Agent
Lecture 28 - Fairness Notions for Indivisible Goods
Lecture 29 - Computing EF1 Allocations

Lecture 30 - An Introduction to Rent Division
Lecture 31 - Rent Division and Maximum Weight Matchings
Lecture 32 - Hall's Theorem and Maximin Share
Lecture 33 - Probability Review - Part 1
Lecture 34 - Probability Review - Part 2
Lecture 35 - Predicting Election Outcomes
Lecture 36 - Reservoir Sampling and Preference Elicitation