Algorithmic Game Theory CS280
Website: https://panageas.github.io/agt2024.html

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Office Hours: By appointment.

Textbook: Nisan/Roughgarden/Tardos/Vazirani (eds), Algorithmic Game Theory (online).
Recommended: Tim Roughgarden notes.
Remark: Some lectures are not part of the book.

Prerequisites: Introductory undergrad courses* in Algorithms, Analysis and Discrete Math.

Course Description: We will cover topics at the interface of theoretical computer science, learning and economics. Introduction to zero-sum games and LP duality, mechanism design, "price of anarchy" and various applications. Moreover, we will talk about Algorithms and complexity theory for learning and computing equilibria. Finally we will cover topics related to stochastic games.

Grading Policy:

- **Scribing lecture notes (25%)**: Deadline is 1 week after the lectures using a **Latex** template. Possible to work in groups.

- **2 Homeworks (40%)**: Two homeworks will be given. You must use **Latex** for your answers (provide a pdf file). Each student has to work individually.

- **Research Project, implementation or presenting a paper (35%)**: Write a report in **Latex**. Suggested research projects will be available during the third week of the lectures. You may do a project of your choice. Possible to work in groups.

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*Basic knowledge.