

# Economics & Computation

⊖ SS 2025

**Overview session (Vorbesprechung)**

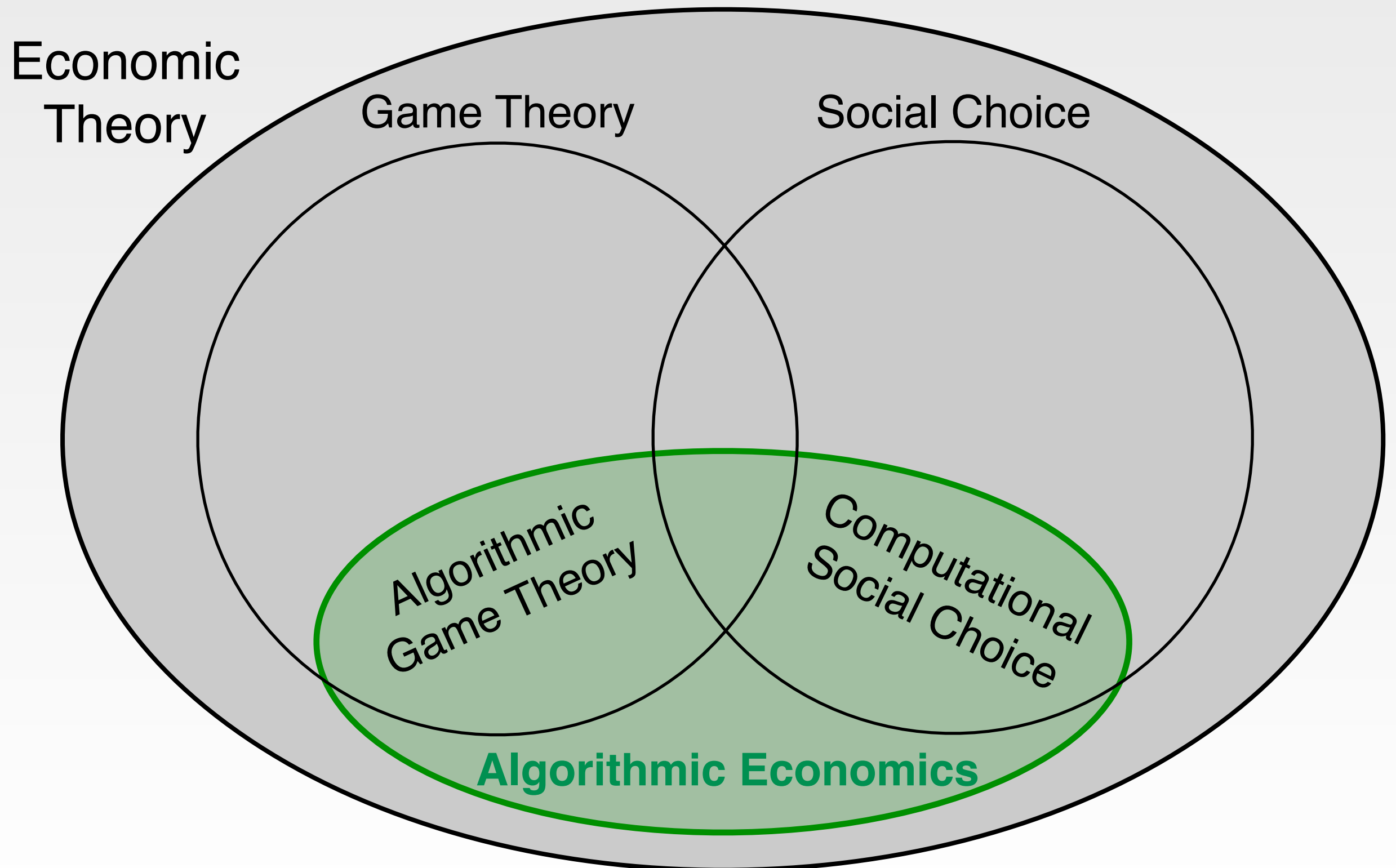
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# Plan for Today

- Introduction
- Organization of the seminar
- Articles to be chosen from
  - ▶ Matching and Allocation
  - ▶ Coalition Formation
  - ▶ Voting theory
  - ▶ Randomized social choice
- Registration/application procedure
- Your questions



# The Big Picture



# Related Courses

- Summer semesters
  - ▶ Course & Tutorial “[Algorithmic Game Theory](#)” (Brandt)
    - Utility theory, normal-form games, stable matchings
  - ▶ Course & Tutorial “[Operations Research \(WI IV\)](#)” (Bichler)
    - Decision theory, linear programming, discrete optimization
  - ▶ Seminar “[Economics and Computation](#)” (Brandt)
    - **Advanced research seminar (master level)**
- Winter semesters
  - ▶ Course & Tutorial “[Computational Social Choice](#)” (Brandt)
    - Rational choice, voting rules, impossibility theorems
  - ▶ Course & Tutorial “[Auction Theory & Market Design](#)” (Bichler)
    - Combinatorial auctions, spectrum license auctions, procurement
  - ▶ Seminar “[Markets, Algorithms, Incentives, and Networks](#)” (Brandt)
    - Introductory seminar (bachelor level)



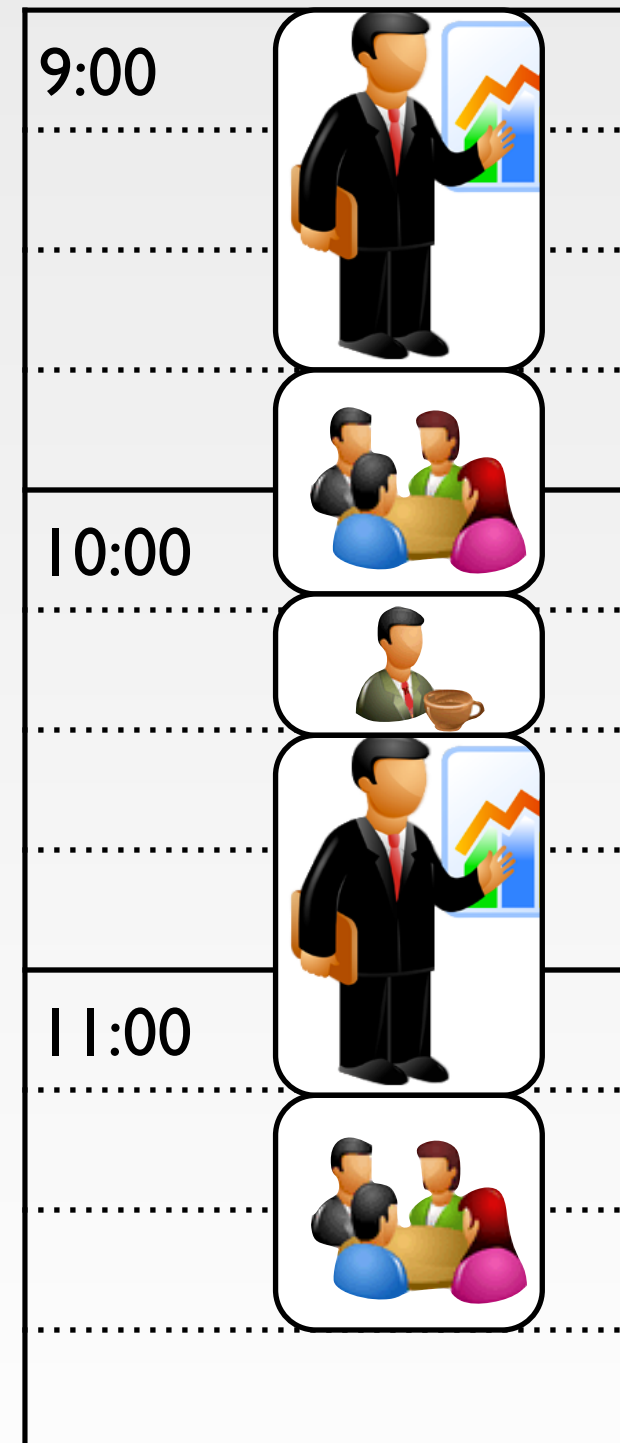
# Tentative Dates

<b>Date</b>	<b>Time</b>	<b>Topic</b>
January ✓	12:00 - 14:00	Overview meeting
Fri, May 9	14:00 - 15:00	Kick-off meeting
Fri, June 6	09:00 - 17:00	Session 1
Fri, June 13	09:00 - 17:00	Session 2
Fri, June 27	09:00 - 17:00	Session 3



# Rough Schedule

- First presentation
  - ▶ Talk (35 - 45 min)
  - ▶ Feedback (~10 min)
  - ▶ Discussions (10 - 20 min)
- Break
- Second presentation
  - ▶ Talk
  - ▶ Feedback
  - ▶ Discussions
- 4 presentations in each session



# In order to pass you need to...

- Attend all meetings
  - ▶ You may only be absent if you have a *good* reason
- Write a handout for your talk/topic
  - ▶ To better prepare the audience for your talk
  - ▶ E.g., general introduction, notation, theorem statements
- Read the abstracts and handouts of your peers before their talk
  - ▶ Prepare issues for discussion
- Give a good talk (in English)
- Participate in discussions
- Chair a session
  - ▶ Introduce speaker, keep track of time, moderate discussion
  - ▶ More than process moderation



# Do I have to meet my supervisor?

No, but it is **highly recommended**

- 3 weeks before your talk:  
    discuss general plan of handout & talk
- 1 week before your talk:  
    send slides (if you plan to use slides)
- **You** are the expert on your paper!





# Topics

- Matching & Allocation
  - One- and two-sided matching markets
  - Divisible and indivisible goods
  - Fairness notions and popularity
- Coalition Formation
  - Core, stability, and computational hardness
- Social Choice
  - Strategyproofness and structured alternatives
  - Participatory budgeting and committee voting
- Randomized Social Choice
  - SSB utilities and maximal lotteries
  - SMT, SAT, IP solvers

