

# Auction Theory

## (3 ECTS, Module 3)

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# Motivation

We see auctions in

- electricity,
- climate policy,
- spectrum,
- mobile communications,
- financial securities,
- professional sports,
- and in many more applications!

This course overviews the standard models of an auction.

You will

- 1 get familiar with the existing auction formats,
- 2 study a classical auction for a single, indivisible object in detail,
- 3 complement this model with endogenous entry, information acquisition, multiple objects to sell, and
- 4 learn how to bring the theory to data.

# Outcomes

After taking the course, you will be able to

- read, understand, and critically assess research and policy papers on auctions/mechanism design,
- model a strategic interaction in a competitive environment,
- use the tools of mechanism design to solve the problems of interest,
- construct a mapping between theoretical auction models and data,
- develop your own research ideas related to auctions/mechanisms.

# Organization

- 1 Pre-requisites:  
Calculus, Microeconomics–I, Microeconomics–II,  
Game Theory (optional)
- 2 Format:  
*Lectures* (30 hours) + *Seminars* (6 hours)
- 3 Activities and their weight in the course grade:
  - 2 home assignments (15% each)
  - paper presentation + a referee report on it (15% each)
  - final test (40%)

To learn more and see the reading list, please, follow this [link](#).