

ADM III

Online Optimization

WS 2014/15

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student info

- Language? -> english
- Breaks? -> we'll decide spontaneously
- Please fill list of participants

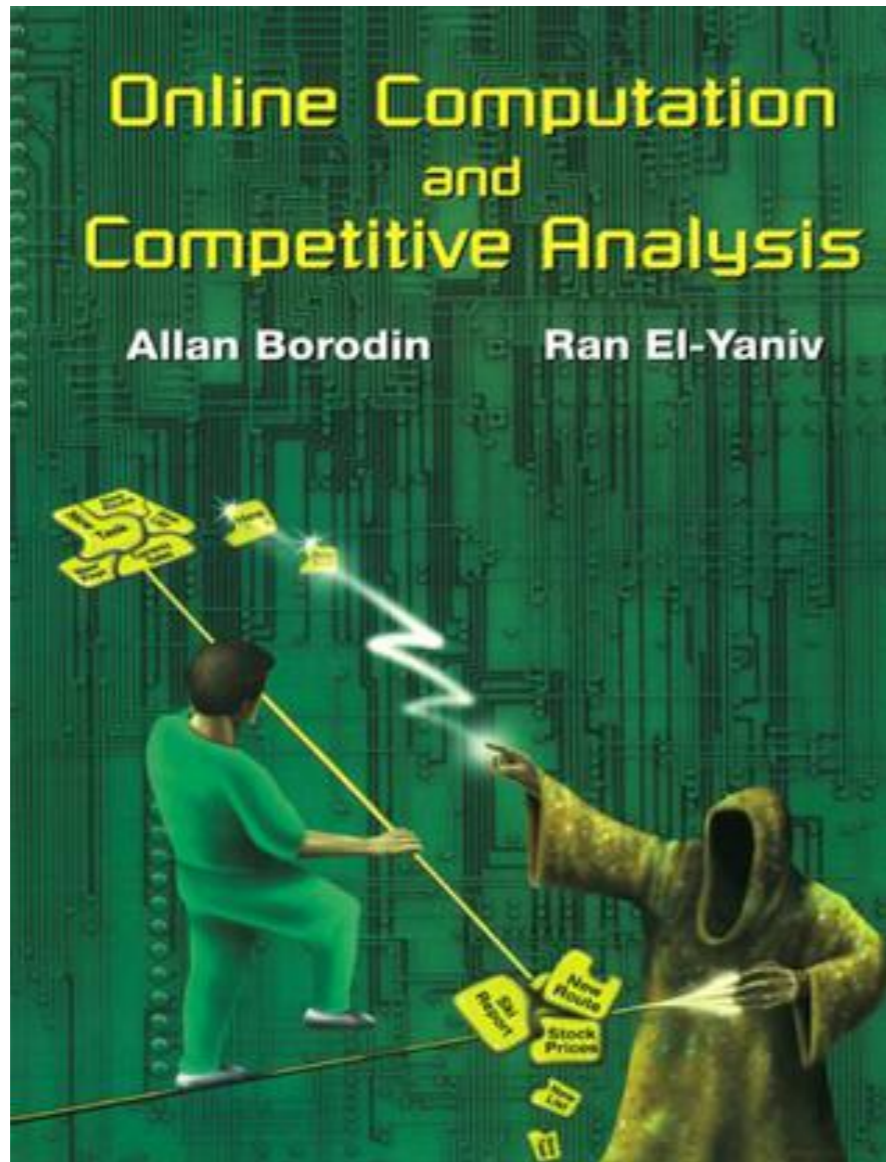
organization

- Time and Room:
 - Tuesday 10:00 – 12:00, MA 544
 - Thursday 12:00 – 14:00, MA 313
- Format: 3L+1Ex
- Oral Exam
- 10 ECTS points

exercise

- Exercise Session every 2 weeks
 - problems handed out a week before
- Interactive exercises
 - active participation!
 - you present your solutions
- Relevant for the exam

course material



- Most topics are taken from the book
- In addition:
 - research papers
 - research results
- We will provide references to material

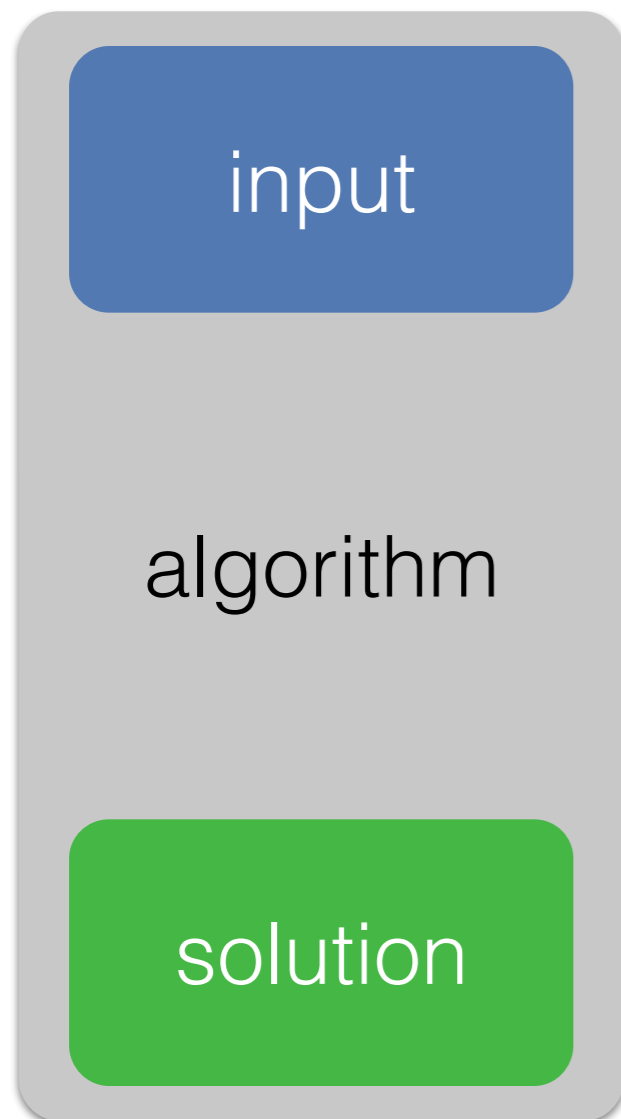
Questions?

Let's get started!

enjoy :-)

offline vs. online

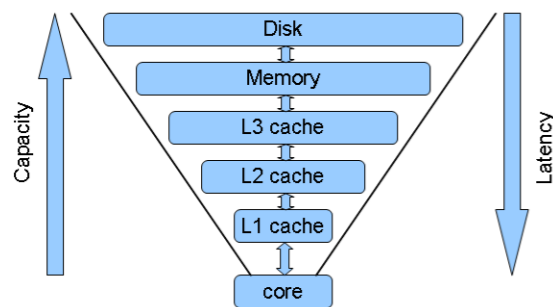
offline



online



online examples



- elevator control:
 - react to request immediately
- markets:
 - buy/sell without future info
- caching:
 - replace memory slots upon load
- etc. etc.

quality of online solutions

- How do we measure quality?
 - compare to best online algo?
 - but that is what we're trying to find!
- Competitive Analysis
 - compare with best offline solution (worst case)
 - easier, but unfair!
- The Adversary
 - will select the worst instance for us
 - reacts to our moves and decides next input