Economics & Computation

SS 2013

Overview session (Vorbesprechung)
30 Jan 2013

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Plan for Today

• Introduction
• Organization of the seminar
• Papers
  ‣ matching theory
  ‣ voting theory
  ‣ other (including further mechanism design)
• Registration
The Big Picture

Economic Theory

Game Theory

Social Choice

Algorithmic Game Theory

Computational Social Choice

Algorithmic Economics
Economics & Computation

• In recent years, there has been an increasing interest in topics at the intersection of economics and computer science, as witnessed by the rapid rise of research areas such as algorithmic game theory and computational social choice.

• This development is due to the emergence of computational networks such as the Internet as well as the need to get a grip on algorithmic questions in economics.

• The emphasis in this seminar lies on the independent study of classic economics papers as well as more recent papers from computer science. Among the topics to be covered are matching theory, mechanism design, and voting theory.
## Dates

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Talks</th>
<th>Room</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wed, April 24</td>
<td>10.00 - 12.00</td>
<td>(first meeting)</td>
<td>01.12.035</td>
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<tr>
<td>Wed, May 22</td>
<td>10.00 - 13.00</td>
<td>1 &amp; 2</td>
<td>01.12.035</td>
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<tr>
<td>Wed, May 29</td>
<td>10.00 - 13.00</td>
<td>3 &amp; 4</td>
<td>01.12.035</td>
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<tr>
<td>Wed, June 5</td>
<td>10.00 - 13.00</td>
<td>5 &amp; 6</td>
<td>01.12.035</td>
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<tr>
<td>Wed, June 12</td>
<td>no meeting</td>
<td>no meeting</td>
<td>no meeting</td>
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<tr>
<td>Wed, June 19</td>
<td>10.00 - 13.00</td>
<td>7 &amp; 8</td>
<td>01.12.035</td>
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Rough Schedule

• First session
  ‣ talk (30-45 min)
  ‣ feedback (5-10 min)
  ‣ discussions (10-20 min)

• Break

• Second session
  ‣ talk
  ‣ feedback
  ‣ discussions
In order to pass you need to...

• attend all meetings
  ‣ you may be absent once if you have a good reason

• write an abstract/hand-out for your talk/topic
  ‣ to better prepare the audience for your talk
  ‣ e.g., general introduction, notation, theorem statements, etc.

• give a good talk/presentation (in English)

• read the abstracts by your peers before the talk
  ‣ prepare questions

• participate in discussions

• chair a session
Do I have to meet my supervisor?

• No, but **we recommend it**
  ▸ 3 weeks before your talk: discuss general plan of abstract & talk
  ▸ 1 week before your talk: send slides (if you plan to use slides, which we also recommend)
  ▸ **you** are the expert on your paper!
Matching

Voting

• J. Bartholdi, III, C. A. Tovey, and M. A. Trick.
  The computational difficulty of manipulating an election. 1989.
• V. Conitzer, T. Sandholm, and J. Lang.
  When are elections with few candidates hard to manipulate? 2007.
• A. Gibbard. Manipulation of schemes that mix voting with chance. 1977.
• P. Tang and F. Lin.
  Computer-aided proofs of arrow’s and other impossibility theorems. 2009.
Other


Registration

• Email to brill@in.tum.de and geist@in.tum.de
  ▶ name, (brief) background, motivation (up to 250 words)
  ▶ 2-5 papers you are interested in

• Deadline: Wednesday, February 6, 2013, 11:59pm
  ▶ notifications until February 8 (including assignment of papers and supervisors)
  ▶ registration in TUMonline by February 22

• Seminar homepage:
  ▶ http://dss.in.tum.de/teaching