

# 13th Trento Summer School

## Intensive course in

Market Design: Theory and Pragmatics 25 June - 6 July, 2012



#### www-ceel.economia.unitn.it

Co-Directors of the School:

**Dan Friedman,** Economics Department, University of California, Santa Cruz **David Parkes,** School of Engineering and Applied Sciences, Harvard University

# Guest lecturers:

Tuomas Sandholm, School of Computer Science Department, Carnegie Mellon University,
Peter Cramton, Economics Department, University of Maryland,
Paul J. Healy, Economics Department, Ohio State University,
S. N. Muthu Muthukrishnan, Computer Science Department, Rutgers University,
Estelle Cantillon, ECARES, Université Libre de Bruxelles

**Program Directors:** 

**Axel Leijonhufvud**, UCLA and University of Trento **Enrico Zaninotto**, University of Trento

Director of CEEL:

Luigi Mittone University of Trento

#### **Description of the school**

For the last several centuries, markets have spread spontaneously and have organized an increasing share of human activity. Globalization and information technologies accelerated the process in the early 21<sup>st</sup> century and, at the same time, opened unprecedented new opportunities for deliberate design.

Market design has much to learn from success stories like Amazon and eBay, online advertising, labour markets for medical interns and residents, wireless spectrum auction design, expressive auctions for sourcing, and mobile phone banking in the developing world. Market designers can also learn from disasters such as the California energy market of May 2000 through September 2001 and the credit-default swap market freeze in September 2008.

Market design is a multi-disciplinary problem with relevant expertise coming from economic theory, computer science, and operations research. Advances are made with the right combination of theory and pragmatics, with theoretical ideals balanced against requirements for computational and informational efficiency, as well as simplicity and robustness.

The 2012 Trento Summer School faculty will bring together experts from many fields:

- artificial intelligence and multi-agent systems
- · experimental economics
- · mechanism design theory
- prediction markets
- theoretical computer science

They will provide an integrated series of lectures on topics such as

- · two-sided platforms
- matching markets
- double auction markets
- virtual economies
- combinatorial auctions

Students participating in this Summer School will gain an up-to-date overview of the relevant theory, current evidence on what sorts of market formats work well under various conditions, and pragmatic issues that arise when theoretical paradigms meet real-world challenges.

In addition to overview lectures in the mornings, the school will feature intensive seminar-style discussions in the afternoons of participants' research. The Trento Summer Schools are intended for advanced graduate students and post-doctoral scholars in economics, computer science and operations research. People interested in



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participating in the Summer School are encouraged to apply by submitting a curriculum vitae, a two-page essay describing their interest in Market Design, a course transcript from their PhD program, including advanced examinations passed, two letters of recommendation, and statements about their current or projected research, along with relevant research papers, if any.

Applications are due by Saturday, 17 March 2012 - extended to 31 March 2012. We encourage electronic submissions (PDF format).

Admissions decisions will be announced by **10 April 2012 - extended to 15 April 2012**. All applicants will be informed by e-mail about the results.

The sessions will be held at Hotel Villa Madruzzo, Trento, Italy. All participants are required to stay for the entire duration of the event. Food and accommodation will be covered by the School (except for meals during the weekend) and participants will have to cover travel expenses.

Please direct logistical questions to the Summer School secretary (ccschool@economia.unitn.it).

This is the thirteenth of a series of intensive courses to be offered by the Cognitive Experimental Economics Laboratory (CEEL) with the financial support of John S. Latsis Public Benefit Foundation.

http://www-ceel.economia.unitn.it/summer school/thirteenth/index.html



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