

## **abstract**

Computer Science/Discrete Mathematics Seminar I  
Topic:

Speaker:

Affiliation:

Date:

Time/Room:

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In settings of incomplete information, we put forward (1) a very conservative ---indeed, purely set-theoretic--- model of the beliefs (including totally wrong ones) that each player may have about the payoff types of his opponents, and (2) a new and robust solution concept, based on mutual belief of rationality, capable of leveraging such conservative beliefs.

We exemplify the applicability of our new approach for single-good auctions, by showing that, under our solution concept, a normal-form, simple, and deterministic mechanism guarantees ---up to an arbitrarily small, additive constant--- a revenue benchmark that is always greater than or equal to the second-highest valuation, and sometimes much greater. By contrast, we also prove that the same benchmark cannot even be approximated within any positive factor, under classical solution concepts.

Joint work with Silvio Micali.