

Seminar on Market Design

“Market design is a kind of economic engineering, utilizing laboratory research, game theory, algorithms, simulations, and more. Its challenges inspire us to rethink longstanding fundamentals of economic theory.”

-Paul Milgrom

I. TOPIC DESCRIPTION

For a long time, economists studied given markets and mechanisms to predict outcomes, future developments or generally the participants' behavior. In contrast, Market Design uses theory, empirical and experimental work to design markets which incentivize their participants in a way that leads to a “desirable” outcome. In this, the designer can have different objectives, for example: Maximizing efficiency, welfare or minimizing negative externalities.

Prominent applications of Market Design include, quite topical, Germany's auction of 5G mobile licenses and matching markets, where there are two large populations that need to be matched to one another (think of hospitals and interns, students and dorm rooms or kidney donors and receivers). In this seminar, we think about ways to either design new markets or how we could alter existing ones in a socially beneficial way. Alternatively, research ideas could focus on finding failures or shortcomings of ineffectively designed markets.

II. SCOPE OF THE SEMINAR

Please note that no topics will be handed out. Instead, participants will develop their own research question in the broad field of Market Design. Using their own creative abilities, students design an economic experimental or field study that answers their research question. Students will work in groups of two or three. If the process of group formation is unsuccessful, participants will be assigned.

The seminar starts with an introductory meeting on Wednesday, April 24 at 12:30 in building 30.28, room R 220. Ideas for experiments or field studies will be presented in blocked events on May 27-29. Each presentation should last max. 20 minutes. Full attendance in all meetings is required for successful participation in the seminar. Seminar papers of 8 – 10 pages, as well as two abstracts (one with 70-100 words, one with 120-150 words) are to be handed in by August 15.

Grades will be based on the quality of presentations in the seminar (40%), the seminar paper (40%) and the abstracts (20%). Students can improve their grades by 0.3 for good and

constructive discussion contributions or by 0.7 for excellent and constructive discussion contributions. Application will be possible via the centralized platform until the 1st of April.

Please note that we will ask you for a brief description of the topic and research idea you are interested in, in order to ensure a well-balanced variety in the seminar. Prior attendance of the courses “Economics and Behavior” and/or “Auction and Mechanism Design” is recommended but not required. For further questions, please contact David Huber (david.huber@kit.edu).



Joel Pett, Lexington Herald

III. SOURCES OF INSPIRATION

- Albrecht, K., Von Essen, E., Parys, J., Szech, N. (2013): Updating, self-confidence, and discrimination. *European Economic Review*, 60, 144-169.
- Balafoutas, L., Beck, A., Kerschbamer, R., Sutter, M. (2013): What drives taxi drivers? A field experiment on fraud in a market for credence goods. *Review of Economic Studies*, 80(3), 876-891.
- Beresford, A. R., Kübler, D., Preibusch, S. (2012): Unwillingness to pay for privacy: A field experiment. *Economics letters*, 117(1), 25-27.
- Braun, S., Dwenger, N., Kübler, D., Westkamp, A. (2014): Implementing quotas in university admissions: An experimental analysis. *Games and Economic Behavior*, 85, 232-251.
- Cassar, Friedman (2004): Economics Lab. An Intensive Course in Experimental Economics. *Routledge*
- Croson (2002): Why and how to Experiment. *University of Illinois Review*
- Dizdar, D., Moldovanu, B., Szech, N. (2018): The Feedback Effect in Two-Sided Markets with Bilateral Investments. *Working Paper*, available at polit.econ.kit.edu

- Dufwenberg, M., Gneezy, U. (2002): Information disclosure in auctions: an experiment. *Journal of Economic Behavior & Organization*, 48(4), 431-444.
- Falk, A., Szech, N. (2013): Morals and markets. *Science*, 340(6133), 707-711.
- Hoppe, H. C., Moldovanu, B., Sela, A. (2009). The theory of assortative matching based on costly signals. *The Review of Economic Studies*, 76(1), 253-281.
- Kagel, J. H., Roth, A. E. (2000): The dynamics of reorganization in matching markets: A laboratory experiment motivated by a natural experiment. *The Quarterly Journal of Economics*, 115(1), 201-235.
- Kerschbamer, R., Neururer, D., Sutter, M. (2016): Insurance coverage of customers induces dishonesty of sellers in markets for credence goods. *Proceedings of the National Academy of Sciences*, 113(27), 7454-7458.
- Kerschbamer, R., Sutter, M. (2017): The economics of credence goods—a survey of recent lab and field experiments. *CEifo Economic Studies*, 63(1), 1-23.
- Llorente-Saguer, A., Sheremeta, R. M., Szech, N. (2018): Designing contests between heterogeneous contestants: An experimental study of tie-breaks and bid-caps in all-pay auctions. *Working Paper, available at polit.econ.kit.edu*
- Penczynski, S. P., Zhang, S. (2017): Disclosure of Verifiable Information under Competition: An Experimental Study. *Working Paper, available at penczynski.de*
- Reuben, E., Sapienza, P., Zingales, L. (2014): How stereotypes impair women's careers in science. *Proceedings of the National Academy of Sciences*, 201314788.
- Roth, A. E. (2008): What have we learned from market design?. *Innovations: Technology, Governance, Globalization*, 3(1), 119-147.