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Mechanism Design and Information Design: A Short Course on Theory and Applications

University of Basel

20-22 March 2017

Program. This short course provides an introduction into recent research in games of incomplete information and mechanism design. The focus of lecture is on the important role of private information for the design of mechanism, the analysis of strategic behavior, and the role in the provision of incentives in markets for information. The lectures are centered on recent research, but will aim to provide a broad introduction into the basic themes and the current research agendas at large. The lectures will provide additional references as we proceed.

Monday, 20th March

Lecture 1: The Basics of Mechanism Design: 9:15 - 10:45, WWZ Building S16

1. Bergemann and Morris (2012)
2. Börgers (2015)

Lecture 2: Efficient and Revenue Maximizing Mechanism: 11-12:30 WWZ Building S16

1. Krishna (2002)
2. Myerson (1981)

3. Bergemann and Morris (2005)

Lecture 3: Dynamic Mechanism Design:13:45-15.15 WWZ Building S16

1. Bergemann and Välimäki (2010)
2. Bergemann and Said (2011)
3. Bergemann and Strack (2015)

Tuesday, 21st March

Lecture 4: Bayesian Persuasion 9:15 - 10:45, WWZ Building S16

1. Kamenica and Gentzkow (2011)

Lecture 5: Bayes Correlated Equilibrium, 11-12:30; WWZ Building S16

1. Bergemann and Morris (2013)
2. Bergemann and Morris (2016a)

Lecture 6: Information Design 13:45-15.15 WWZ Building S16

1. Bergemann and Morris (2016b)

Wednesday, 22nd March

Lecture 7: The Limits of Price Discrimination 9:15 - 10:45, WWZ Building S14

1. Bergemann, Brooks, and Morris (2015)

Lecture 8: First Price Auction with General Information Structures 11-12:30;
WWZ Building S14

1. Bergemann, Brooks, and Morris (2016)

Lecture 9: Design and Price of Information, 13:45-15.15 WWZ Building S14

1. Bergemann and Bonatti (2011)
2. Bergemann, Bonatti, and Smolin (2015)

References

- BERGEMANN, D., AND A. BONATTI (2011): “Targeting in Advertising Markets: Implications for Offline Vs. Online Media,” *RAND Journal of Economics*, 42, 414–443.
- BERGEMANN, D., A. BONATTI, AND A. SMOLIN (2015): “Designing and Pricing Information,” .
- BERGEMANN, D., B. BROOKS, AND S. MORRIS (2015): “The Limits of Price Discrimination,” *American Economic Review*, 105, 921–957.
- (2016): “First Price Auctions with General Information Structures: Implications for Bidding and Revenue,” *Econometrica*, forthcoming.
- BERGEMANN, D., AND S. MORRIS (2005): “Robust Mechanism Design,” *Econometrica*, 73, 1771–1813.
- (2012): *Robust Mechanism Design*. World Scientific Publishing, Singapore.
- (2013): “Bayes Correlated Equilibrium and Comparison of Information Structures,” Discussion Paper 1822R, Cowles Foundation for Research in Economics, Yale University.
- (2016a): “Bayes Correlated Equilibrium and the Comparison of Information Structures in Games,” *Theoretical Economics*, 11, 487–522.
- (2016b): “Information Design, Bayesian Persuasion, and Bayes Correlated Equilibrium,” *American Economic Review Papers and Proceedings*, 106(5), 586–591.
- BERGEMANN, D., AND M. SAID (2011): “Dynamic Auctions: A Survey,” in *Wiley Encyclopedia of Operations Research and Management Science*, ed. by J. Cochran, no. 1757, pp. 1511–1522. Wiley, New York.
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- BERGEMANN, D., AND J. VÄLIMÄKI (2010): “The Dynamic Pivot Mechanism,” *Econometrica*, 78, 771–790.

- BÖRGERS, T. (2015): *An Introduction to the Theory of Mechanism Design*. Oxford University Press, Oxford.
- KAMENICA, E., AND M. GENTZKOW (2011): “Bayesian Persuasion,” *American Economic Review*, 101, 2590–2615.
- KRISHNA, V. (2002): *Auction Theory*. Academic Press, San Diego.
- MYERSON, R. (1981): “Optimal Auction Design,” *Mathematics of Operations Research*, 6, 58–73.