

Pavel Kocourek

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Last Updated: *July 2021*

Academic Employment

Post-Doctoral Fellow at CERGE-EI, Charles University and Academy of Science, 2019-2022

Education

- 2011-2019 PhD. In Economics, New York University,
Supervisor: *Professor Ennio Stacchetti*
Thesis Title: [*Revealing Private Information in a Patent Race*](#).
- 2010-2011 M.A in Macroeconomic Policy and Financial Markets, Barcelona GSE
- 2008-2010 M.A in Finance Optimization, National Sun Yat-sen University
- 2005-2008 B.A in Applied Mathematics, University of Western Bohemia

Teaching and Research Fields

Microeconomic Theory and Game Theory.

Teaching Experience

- 2020 Instructor of B.A Microeconomics and Game Theory course, [SAS](#)
- 2020, 2021 Instructor of Microeconomics Preparatory PhD course, [CERGE-EI](#)
- 2015, 2017 Teaching Assistant for PhD course Mathematics for Economists, GSAS, NYU
- 2013–2018 Teaching Assistant for B.A course Introduction to Microeconomics, GSAS, NYU
- 2016–2017 Teaching Assistant for B.A course in Microeconomics, Stern School of Business, NYU
- 2017 Teaching Assistant for B.A course Econometrics, GSAS, NYU
- 2013 Teaching Assistant for B.A course Statistics, GSAS, NYU

Research Experience and Other Employment

- 2014-2015 Research Assistant for Professor Christopher J. Sprigman, NYU School of Law (Simulating agents' behavior for an experiment on a patent law)
- 2013 Grader for Ennio Stacchetti (B.A course Strategic Decision Theory and PhD course Advanced Microeconomic Theory)
- 2009-2010 Research Assistant for Professor Frank Y.-H. Ying, National Sun Yat-sen University (Solving DSGE models for Taiwan government)

Honors, Scholarships, and Fellowships

- 2011-2016 McCracken Scholarship, NYU
- 2010-2011 La Caixa Scholarship, Barcelona GSE
- 2008-2010 Taiwan Governmental Scholarship
- 2005 Silver Medal, 46th International Mathematical Olympiad
- 2003 Bronze Medal, 44th International Mathematical Olympiad

Publications

P. Kocourek, W. Takahashi and J. C. Yao (2011), "[Fixed point theorems and ergodic theorems for nonlinear mappings in Banach spaces.](#)" *Advances in Mathematical Economics*.

W. Takahashi, J.C. Yao, P. Kocourek (2011), "[Weak and strong convergence theorems for generalized hybrid nonself-mappings in Hilbert spaces.](#)" *J. Nonlinear Convex Analysis*.

P. Kocourek, W. Takahashi and J. C. Yao (2010), "[Fixed point theorems and weak convergence theorems for generalized hybrid mappings in Hilbert spaces.](#)" *Taiwanese Journal of Mathematics*.

P. Kocourek (2010), "[An elementary new proof of the determination of a convex function by its subdifferential.](#)" *Optimization*.

Working Papers

[Endogenous Risk Attitudes](#), with [Nick Netzer](#), [Arthur Robson](#) and [Jakub Steiner](#)

In a model inspired by neuroscience, we show that constrained optimal perception encodes lottery rewards using an S-shaped encoding function and over-samples low-probability events. The implications of this perception strategy for behavior depend on the decision-maker's understanding of the risk. The strategy does not distort choice in the limit as perception frictions vanish when the DM fully understands the decision problem. If, however, the DM underrates the complexity of the decision problem, then risk attitudes reflect properties of the perception strategy even for vanishing perception frictions. The model explains adaptive risk attitudes and probability weighting, as in prospect theory and, additionally, predicts that risk attitudes are strengthened by time pressure and attenuated by anticipation of large risks.

[Revealing Private Information in a Patent Race](#)

In this paper I investigate the role of private information in a patent race. Since firms often do their research in secrecy, the assumption standard in patent race literature that firms know each other's position in the race is questionable. I analyze how the dynamics of the game change when a firm's progress is its private information, and I address the question whether revealing it might be to a firm's advantage. I find that a firm has an incentive to reveal its breakthrough only if its rival has not done so, and only if the research is costly.

[Multi-player Discrete All-pay Auctions](#)

In this paper, I study all-pay common-value auctions in which bids are restricted to a discrete set. I focus on auctions with three or more active participants. I prove that unlike in a two-player auction, this auction has always unique symmetric Nash equilibrium in mixed strategies, and players always receive strictly positive (expected) payoff. I show that player's payoff does not necessarily increase with the value of the prize or decrease with the number of participants. In fact, the coarseness of the set of bids is more relevant for the payoffs than the value of the prize.

[Optimal Stopping in Patent Race Games](#)

In their study *Optimal Stopping with Private Information*, Kruse and Strack (2013) analyze a single-agent optimal stopping mechanism design problem with transfers. I extend their framework to a general class of problems in which termination can occur exogenously prior to the agent's stopping time. I provide a simple condition under which all cut-off rules are implementable by a posted-price mechanism. As an application, I consider patent race in which each agent has private information about the arrival rate of a discovery, and stopping represents giving up the research efforts.