

Education and Qualifications

08/2008	Diploma	in Mathematics, Technische Universität Kaiserslautern
10/2013	PhD	in Mathematics, Eidgenössische Technische Hochschule Zürich (ETHZ)
10/2008-07/2013		Doctoral student, Universität Zürich and ETHZ
10/2010		Research stay at CRM Barcelona
09/2013-today		Postdoc at Hoover Institution, Stanford University, financed by SNSF Grant 148769

Refereed research papers

1. Judd, K., P. Renner, and K. Schmedders (2012). Finding All Pure-Strategy Equilibria in Static and Dynamic Games with Continuous Strategies. *Quantitative Economics* 3 (2).
2. Couzoudis, E. and P. Renner (2013). Computing Generalized Nash Equilibria by Polynomial Programming. *Mathematical Methods of Operations Research* 77(3), 459–472.
3. Kubler, F., P. Renner, and K. Schmedders (2014). “Chapter 11 - Computing All Solutions to Polynomial Equations in Economics”. Schmedders, K. and K. L. Judd, eds. *Handbook of Computational Economics Vol. 3*. Vol. 3. Handbook of Computational Economics. Elsevier, pp.599–652.
4. Renner, P. and K. Schmedders (2014). A Polynomial Optimization Approach to Principal-Agent Problems. *Econometrica*. accepted.

Work in progress

1. Renner, P. (2014). “Quantity precommitment and Bertrand competition: A dynamic games approach”.
2. Renner, P. and K. Schmedders (2014). “Computing Discrete Time Dynamic Principal Agent Models”.

Theses

1. Renner, P. (2008). “Zur Implementierung von Jungs Desingularisierungsalgorithmus für Flächen”. MS. Technische Universität Kaiserslautern.
2. Renner, P. (2013). “Applications of algebraic geometry in economics”. PhD thesis. Eidgenössische Technische Hochschule Zürich.

Presentations

- 09/2010 “Finding All Pure-Strategy Equilibria in Static and Dynamic Games with Continuous Strategies”, OR days 2010, Fribourg
- 11/2010 “Finding All Pure-Strategy Equilibria in Static and Dynamic Games with Continuous Strategies”, CRM research seminar, Barcelona
- 09/2011 “Solving Principal Agent Problems by Polynomial Programming”, Euro 2011, Zurich
- 10/2011 “Solving Principal Agent Problems by Polynomial Programming”, AG 2012, Raleigh
- 06/2012 “Finding Generalized Nash Equilibria by Polynomial Programming”, Oberseminar Reelle Algebraische Geometrie, Konstanz
- 06/2012 “Computing Generalized Nash Equilibria by Polynomial Programming”, OR days 2012, Neuchâtel
- 08/2012 “Computing Generalized Nash Equilibria by Polynomial Programming”, 21st International symposium on mathematical programming, Berlin
- 06/2013 “Solving Polynomial Bilevel Problems”, Europt 2013, Florence
- 07/2013 “Solving Polynomial Bilevel Problems”, Euro 2013, Rome
- 05/2014 “Studying Two StageGames by Polynomial Programming”, OP 2014, San Diego

Teaching

- 2006-2007 Tutorial to lecture “Einführung in die Mathematik” (Introduction to mathematics),
Technische Universität Kaiserslautern
- 2009-2013 Tutorial to lecture “Mathematik I für Ökonomen” (Mathematics for economists I),
Universität Zürich
- 2009-2013 Tutorial to lecture “Mathematik II für Ökonomen” (Mathematics for economists II),
Universität Zürich

Refereeing

- Mathematical Methods of Operations Research
- Quantitative Economics