

Thanh Nguyen

Purdue University
Krannert School of Management
403 W. State Street
West Lafayette, IN 47907-2056

Phone: (765) 49-48658
Email: nguye161@purdue.edu
Homepage: <http://web.ics.purdue.edu/~nguye161/>

Employment

Assistant Professor, Krannert School of Management, Purdue University 2013- now
Postdoctoral Fellow, Kellogg School of Management, Northwestern University 2010-2013

Education

Ph.D., Cornell University, Ithaca, NY 2010
Diploma in Mathematics, Eötvös University, Budapest, Hungary 2004

Research Interests

Game theory, Optimization, Market design. My research focuses on analyzing network markets and designing mechanisms for market design problems. My research applies to various large-scale markets and systems, including wireless spectrum markets, electricity markets, matching markets, supply chain networks and systems engineering.

Publications

1. Local Bargaining and Supply Chain Instability-Technical Note, **Operations Research**, accepted, 2017
T. Nguyen
2. The Cost of Free Spectrum, **Operations Research**, Volume 64, Issue 6, 2016
T. Nguyen, H. Zhou, R. Berry, M. Honig and R. Vohra
3. Assignment Problems with Complementarities, **Journal of Economic Theory**, Volume 165, 2016
T. Nguyen, M. Peivandi and R. Vohra
4. Delay in Trade Networks, **Operations Research**, Volume 64, Issue 3, 2016
T. Nguyen, V. Subramanian and R. Berry
5. Coalitional Bargaining in Networks, **Operations Research**, Volume 63, Issue 3, 2015
T. Nguyen
6. A simple LP relaxation for the Traveling Salesman Problem, **Mathematical Programming**, 141,1, 2013
T. Nguyen
7. On the Disjoint Paths Problem, **Operations Research Letters**, 35, 1, 2007
T. Nguyen

Working Papers

1. Near Feasible Stable Matchings with Couples, **2rd round R&R, American Economic Review**, 2016
with R. Vohra
2. Stable Matching with Proportionality Constraints, **submitted to Operations Research**, 2017
with R. Vohra
3. Sharing Intermittent Spectrum, **in preparation**, 2016
with R. Berry, M. Honig, V. Subramanian and R. Vohra
4. Welfare Implications in Competing Ad-networks, **in preparation**, 2016
with K. Kannan

Selected Papers appeared in Proceedings

- Near Feasible Stable Matchings, **ACM Conference on Economics and Computation (EC'15)**
with R. Vohra
- Market Structures for Wireless Services with Shared Spectrum, **ALLERTON**, 2013
with R. Berry, M. Honig, V. Subramanian, and R. Vohra
- On the Nature of Revenue-Sharing Contracts to Incentivize Spectrum-Sharing, **INFOCOM**, 2013
with R. Berry, M. Honig, V. Subramanian, and R. Vohra
- Weighted Proportional Allocation, **ACM SIGMETRICS**, 2011
with M. Vojnovic
- Approximate pure Nash Equilibria via Lovász Local Lemma, **WINE**, 2009
with E. Tardos
- Parallel Imaging Problem, **Algorithms-ESA**, 2008
with E. Tardos
- Approximately maximizing Efficiency and Revenue in Polyhedral Environments, **EC**, 2007
with E. Tardos

Patents

- US Patent App. 12/714,238*: Weighted Proportional Sharing Mechanisms

Awards & Grants

- **NSF** (\$3.5M) Sociotechnical systems to enable smart and connected energy-aware residential communities 2018-2022
- **NSF** (\$502K): Understanding strategic behavior in systems engineering: A theoretical framework based on dynamic network games of incomplete information 2017-2020
- **NSF** (\$173K): Creating an Ecosystem for Spectrum Utilization Through Dynamic Mechanisms 2014-2017
- Jay Ross Young Faculty Scholar Award, Krannert School of Management 2016-2017
- Outstanding Core MBA Teaching Recognition, Krannert School of Management 2015, 2016

Teaching

Business Analytics (MBA core course), Purdue University (<i>Distinguished MBA teacher award, Instructor Evaluation 4.7/5 4.9/5</i>)	Fall 2014, 2016
Advanced Spreadsheet Modeling (Undergraduate course)	Spring 2015, 2016
Social and Economic Networks (PhD course), Purdue University (<i>Instructor Evaluation 5/5</i>)	Spring 2014

Professional Experiences

Organizing Committee of The 5th Midwest Workshop on Control and Game Theory, Purdue University, April 2016

Program Committee for EC 2013; WINE 2013; EC 2014; EC 2015; AMMA 2015; EC 2016, 2017, MATCH-UP 2017

Reviewer for Operations Research Journals: Management Science; Operations Research, Mathematical Programming, Mathematical Methods of Operations Research, Operations Research Letters.

Reviewer for Economic Journals: Econometrica; Journal of Economic Theory, Games and Economic Behavior, Review of Economic Design, Journal of the European Economic Association, International Economic Review

Invited Presentations

Stable Matchings with Proportionality Constraints:

ACM EC 2017, Cambridge MA, NSF/NBER conference, Baltimore October, 2016; INFORMS, Nashville November 2016

Near Feasible Stable Matchings with Complementarities:

Economic Department, Rice University (November 2015)

NBER Market Design Working Group Meeting (October 2015)

Chicago Booth (November 2015)

Economic Department, Ohio State University, April 2015; Cornell University, March 2015; Duke University, February 2015; Purdue University, November 2014

Competing Ad-Networks:

Ad auction workshop, Palo Alto, 2014

One-Sided Matching with Limited Complementarities:

NSF/NBER Decentralization Conference, Stanford, 2014

Delay in Trade Networks

INFORMS 2014; Allerton 2013.

Coalitional Bargaining in Networks:

Duke University, 2012; Kellogg School of Management, 2012; NSF/NBER Math Econ/GE Conference 2011; Microsoft Research New England, 2012; EC 2012

Local Bargaining and Supply Chain Instability:

NSF/NBER Decentralization Conference, California Institute of Technology, 2012; The Econometric Society's North American Summer Meetings 2012, Midwest Econ Theory 2012; EC 2012

The Cost of Free Spectrum:
INFORMS 2012.

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