



Twelfth Annual Northwestern/USPTO Conference on Innovation Economics

Thursday, June 20, 2019 — Friday, June 21, 2019

Northwestern Pritzker School of Law
Wieboldt Hall #147
340 E. Superior Street, Chicago, IL, 60611

This conference is organized by Daniel F. Spulber.

The scientific committee consisted of Pere Arqué-Castells, Alberto Galasso, Christian Helmers, Ralph Siebert, and Daniel F. Spulber.

Thursday, June 20

- 9:00 a.m. **Registration Check-In** (1st Floor of Wieboldt Hall)
Continental Breakfast (Wieboldt Hall #150)
- 10:00 **Welcome and Introduction to the Conference** (Wieboldt Hall #147)
Daniel F. Spulber, Elinor Hobbs Distinguished Professor of International Business, Kellogg School of Management, and Research Director, Northwestern Center on Law, Business, and Economics
Andrew Toole, Chief Economist, United States Patent and Trademark Office
- 10:00-12:00 **Session One—Products and Innovation** (Wieboldt Hall #147)
Session Chair: **Andrew Toole**, Chief Economist, United States Patent and Trademark Office
- Find and Replace: R&D Investment Following the Erosion of Existing Products*
Richard T. Thakor, University of Minnesota, Carlson School of Management*
Joshua L. Krieger, Harvard Business School
Xuelin Li, University of Minnesota, Carlson School of Management
Discussant: **Rajkamal K. Vasu**, C. T. Bauer School of Business, University of Houston
- The Impact of Product Market Characteristics on Firms' Strategies in Patent Litigation*
Danmo Lin, Warwick Business School, Warwick University *
Du Liu, Warwick Business School, Warwick University
Elizabeth Whalley, Warwick Business School, Warwick University
Discussant: **Xuelin Li**, University of Minnesota, Carlson School of Management

Rushed Innovation: Reactive Licensing in the Pharmaceutical Industry

Manuel Hermosilla, The Johns Hopkins Carey Business School

Discussant: **Lex Zhao**, Research Institute for Economics & Business, Kobe University

Revisiting the Effect of Patents on Emerging Markets: Evidence From India

Chirantan Chatterjee, Hoover Institution, Stanford University and IIM Ahmedabad*

Carlos Inoue, Rotman School of Management, University of Toronto

Anita M. McGahan, Rotman School of Management, University of Toronto

Discussant: **Mercedes Campi**, CONICET and University of Buenos Aires

12:00-1:30 **Lunch** (Wieboldt Hall #540)

1:30-2:30 **Session Two—Science and Innovation** (Wieboldt Hall #147)

Session Chair: **Ralph Siebert**, Purdue University, Department of Economics, Krannert School of Management

Running with (CRISPR) Scissors: Tool Adoption and Team Assembly

Samantha Zyontz, Massachusetts Institute of Technology, Sloan School of Management

Discussant: **Amanda F. Myers**, United States Patent and Trademark Office

The Effects of Patent Rights on University Science

Laurent Bergé, CREA, Université du Luxembourg*

Thorsten Doherr, Centre for European Economic Research (ZEW)

Katrin Hussinger, Université du Luxembourg and Centre for European Economic Research (ZEW)

Discussant: **Olena Ivus**, Smith School of Business, Queen's University

2:30-3:00 **Break** (Wieboldt Hall #150)

3:00-5:00 **Parallel Session Three A—Patents and Standards** (Wieboldt Hall #147)

Session Chair: **Ramy Elitzur**, Rotman School of Management, University of Toronto

Approximating the Standard Essentiality of Patents – A Semantics-Based Analysis

Lorenz Brachtendorf, Max Planck Institute for Innovation and Competition; Munich School of Management, Ludwig-Maximilians-University (LMU)

Fabian Gaessler, Max Planck Institute for Innovation and Competition; TUM School of Management, Technical University of Munich*

Dietmar Harhoff, Max Planck Institute for Innovation and Competition; Munich School of Management, Ludwig-Maximilians-University (LMU); Centre for Economic Policy Research (CEPR)

Discussant: **Pere Arqué-Castells**, Center on Law, Regulation, and Economic Growth, Northwestern Pritzker School of Law

Standard Setting Organizations and Cross-Border Mergers & Acquisitions in General Oligopolistic Equilibrium

Avik Chakrabarti, Department of Economics, University of Wisconsin, Milwaukee*
Anjishnu Banerjee, Division of Biostatistics, University of Wisconsin, Milwaukee
Discussant: **Emil Temnyalov**, University of Technology, Sydney

Predicting Administrative Patent Challenges

Brendan Costello, Yale Law School*
Talia Bar, Department of Economics, University of Connecticut
Discussant: **Christian Helmers**, Santa Clara University

Prioritized Examination and its Impact on Commercialization of Patents

Taras Hrendash, Center for Economic Research and Graduate Education – Economics Institute (CERGE-EI)
Discussant: **Runhua Wang**, Chicago-Kent College of Law

Parallel Session Three B—Information, Learning, and Innovation

(Wieboldt Hall #250)

Session Chair: **Alexei Alexandrov**, Wayfair

The Short-Run Effects of GDPR [EU General Data Protection Regulation] on Technology Venture Investment

Liad Wagman, Stuart School of Business, Illinois Institute of Technology*
Jian Jia, Stuart School of Business, Illinois Institute of Technology
Ginger Zhe Jin, University of Maryland
Discussant: **Heli Koski**, Aalto University/ETLA, The Research Institute of the Finnish Economy

The Paper Trail of Knowledge Spillovers: Evidence from Patent Interferences

Jeffrey Lin, Federal Reserve Bank of Philadelphia Research Department*
Ina Ganguli, University of Massachusetts–Amherst
Nicholas Reynolds, Brown University
Discussant: **H. Dennis Park**, Naveen Jindal School of Management, University of Texas at Dallas

A Machine Learning Analysis of The Geographic Localization of Knowledge Flows

Joël Blit, Department of Economics, University of Waterloo*
Mikko Packalen, University of Waterloo
Discussant: **David Heller**, Department Management and Microeconomics, Goethe University Frankfurt

Experimentation, Learning, and Appropriability in Early-Stage Ventures

Andrea Contigiani, Fisher College of Business, Ohio State University
Discussant: **Jian Jia**, Stuart School of Business, Illinois Institute of Technology

5:00-6:00 **Cocktail Reception** (Wieboldt Hall #440)

6:00 **Dinner** (Wieboldt Hall #540)

Keynote Address

Introduction

Daniel F. Pulber, Kellogg School of Management, Northwestern University

Innovation, Antitrust, and Regulation

Bruce Kobayashi, Director, Bureau of Economics, U.S. Federal Trade Commission

Friday, June 21

8:00 a.m. **Breakfast** (Wieboldt Hall #540)

9:00-11:00 **Session Four—Innovation and Acquisitions** (Wieboldt Hall #147)
Session Chair: **Christian Helmers**, Santa Clara University

Acquisition Prices and the Measurement of Intangible Capital

Michael Ewens, California Institute of Technology*

Ryan H. Peters, Tulane University

Sean Wang, Southern Methodist University

Discussant: **Syed Walid Reza**, School of Management, SUNY at Binghamton

What is the US Comparative Advantage in Entrepreneurship? Evidence from Israeli Migration to the United States

Annamaria Conti, University of Lausanne - Faculty of Business and Economics (HEC)*

Jorge Guzman, Columbia Business School, Columbia University

Discussant: **Nic Kozeniauskas**, Banco de Portugal

The Effect of U.S. Public-to-Private Leveraged Buyouts on Innovation

Brian F. Ayash, Orfalea College of Business, California Polytechnic State University*

Edward J. Egan, McDonough School of Business, Georgetown University

Discussant: **Rongrong Zhang**, Parker College of Business, Georgia Southern University

Growth through Acquisition of Innovations

Galina Bestremyannaya, Centre for Economic and Financial Research, New Economic School*

R. Dasher, Stanford University

S. Golovan, New Economic School

Discussant: **Olgu Ozkul**, Department of Economics, University of Illinois Urbana-Champaign

11:00-11:15 **Break** (Wieboldt Hall #150)

11:15-12:45 **Parallel Session Five A—Innovation and Employment**

(Wieboldt Hall #147)

Session Chair: **Pere Arqué-Castells**, Northwestern Center on Law, Business, and Economics, Northwestern Pritzker School of Law

Boundary Choices in Innovation — How does Availability of Hiring Affect Firms' Technology Sourcing Strategies?

Xiaoshu Bei, Fuqua School of Business, Duke University

Discussant: **Ye (George) Jia**, Department of Economics, University of Prince Edward Island

Emerging and Disappearing Work, Thriving and Declining Firms

Sarada, University of Wisconsin Madison, Wisconsin School of Business*

Enghin Atalay, Department of Economics, University of Wisconsin-Madison

Discussant: **Sara Moreira**, Kellogg School of Management, Northwestern University

Heterogeneous Innovation and the Antifragile Economy

Benjamin Balsmeier, Université Du Luxembourg*

Gustavo Manso, University of California, Berkeley

Lee Fleming, University of California, Berkeley

Discussant: **Catherine De Fontenay**, Melbourne Business School, University of Melbourne

Parallel Session Five B—Trademarks and Innovation

(Wieboldt Hall #250)

Session Chair: **Richard D. Miller**, Office of Chief Economist, United States Patent and Trademark Office

Knocking Off Firm Value

Mehmet I. Canayaz, Smeal College of Business, Pennsylvania State University

Umit Gurun, University of Texas at Dallas, Naveen Jindal School of Management *

Discussant: **Kevin Tseng**, Federal Reserve Bank of Richmond

Submarine Trademarks

Christian Helmers, Santa Clara University*

Carsten Fink, World Intellectual Property Organization (WIPO)

Andrea Fosfuri, Bocconi University

Amanda F. Myers, United States Patent and Trademark Office

Discussant: **Zhaoxia Xu**, School of Banking and Finance, UNSW Business School

Product Hopping and Innovation Incentives

Jorge Lemus, Department of Economics, University of Illinois Urbana-Champaign*

Olgu Ozkul, Department of Economics, University of Illinois Urbana-Champaign

Discussant: **Georgios Petropoulos**, MIT and Bruegel

12:45-1:30 **Lunch** (Wieboldt Hall #540)

1:30-3:00

Session Six—Innovation and Intellectual Property (Wieboldt Hall #147)

Session Chair: **Alberto Galasso**, Rotman School of Management, University of Toronto

The Consequences of Invention Secrecy: Evidence from the USPTO Patent Secrecy Program in World War II

Daniel P. Gross, Harvard Business School

Discussant: **Alberto Galasso**, Rotman School of Management, University of Toronto

R&D and Market Size: Who Benefits from Orphan Drug Regulation?

Simona Gamba, Catholic University of Milan*

Laura Magazzini, Department of Economics, University of Verona

Paolo Pertile, Department of Economics, University of Verona

Discussant: **Alexander V. Krasnikov**, Quinlan School of Business, Loyola University Chicago

Early Disclosure Law Reduces Duplication in the US and European Patent Systems

Florian Seliger, KOF Swiss Economic Institute, ETH Zurich*

Sonja Lück, University of Paderborn, Faculty of Business Administration and Economics

Benjamin Balsmeier, Université Du Luxembourg

Lee Fleming, University of California, Berkeley

Discussant: **Lorenz Brachtendorf**, Max Planck Institute for Innovation and Competition; Munich School of Management, Ludwig-Maximilians-University (LMU)

3:00

Adjourn

*Presenters are indicated with an **