Eleventh Annual Searle Center/USPTO Conference on Innovation Economics
Thursday, June 21, 2018 — Friday, June 22, 2018

Northwestern University 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 21

9:00 a.m.  Registration Check-In (1st Floor of Wieboldt Hall)
Continental Breakfast (Wieboldt Hall #540)

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, Searle Center on Law, Regulation, and Economic Growth

10:00-12:00  Session One— Patents and Information (Wieboldt Hall #147)
Session Chair: Christian Helmers, Santa Clara University

Patents, Data Exclusivity, and the Development of New Drugs
Fabian Gaessler, Max Planck Institute for Innovation and Competition
Stefan Wagner, ESMT European School of Management and Technology*
Discussant: Bruno Versaevel, Emlyon Business School

R&D and Patent Decisions as Real Options under Ambiguity
Abraham Ravid, Sy Syms School of Business, Yeshiva University*
Gabriela Coiculescu, Sy Syms School of Business, Yeshiva University
Yehuda Izakiany, Zicklin School of Business, Baruch College
Discussant: Joaquin Poblete, Pontificia Universidad Católica de Chile

A Wonderland after Alice: Abstraction and Uncertainty of Patentability
Nicholas Pairolero, United States Patent and Trademark Office
Jesse Frumkin, United States Patent and Trademark Office
Asrat Tesfayesus, United States Patent and Trademark Office
Andrew A. Toole, United States Patent and Trademark Office
Discussant: Joel Blit, Department of Economics, University of Waterloo

Notice Failure Revisited: Evidence on the Use of Virtual Patent Marking
Gaétan de Rassenfosse, Chair of Innovation and IP Policy, College of Management of Technology, Ecole polytechnique fédérale de Lausanne
Discussant: Georgios Effraimidis, Qualcomm Inc.

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

1:30-2:30 Session Two—Innovation in the Long Run (Wieboldt Hall #147)
Session Chair: Alberto Galasso, Rotman School of Management, University of Toronto

The Long-Run Impact of New Medical Ideas on Cancer Survival and Mortality
Frank R. Lichtenberg, Columbia University
Discussant: Simona Gamba, Department of Economics, University of Verona, Verona, Italy

Ideas-Driven Endogenous Growth and Standard-Essential Patents
Andrei Kirilenko, Imperial College Business School, Imperial College Business School*
Albina Neklyudova-Khairullina, Ecole polytechnique fédérale de Lausanne
Artem Neklyudov, University of Lausanne and SFI
Christopher Tucci, Ecole polytechnique fédérale de Lausanne
Discussant: Iacopo Grassi, University of Naples FEDERICO II, Italy

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

3:00-5:00 Parallel Session Three A—Intellectual Property and Incentives (Wieboldt Hall #147)
Session Chair: Kamil Kiljanski, Chief Economist, DG Internal Market and Industry, European Commission

Optimal Patent Protection with Sequential and Complementary Innovations
Piercarlo Zanchettin, University of Leicester School of Business*
Vincenzo Denicolò, University of Bologna and CEPR
Discussant: Georgios Petropoulos, Bruegel

Verifying High Quality: Entry for Sale
Pehr-Johan Norbäck, Research Institute of Industrial Economics (IFN)*
Lars Persson, Research Institute of Industrial Economics (IFN) and CEPR
Roger Svensson, Research Institute of Industrial Economics (IFN)
Discussant: Gaston Llanes, Pontificia Universidad Católica de Chile

Sequel Firm Creation and Moral Hazard in Teams
Pierre Mella-Barral, Toulouse Business School, University of Toulouse
Hamid Sabourian, University of Cambridge
Discussant: Francisco Ruiz-Aliseda, Pontificia Universidad Católica de Chile
Optimal Standards of Proof for Non-Obviousness and Infringement
Ezra Friedman, Northwestern Pritzker School of Law*
Abraham L. Wickelgren, University of Texas School of Law
Discussant: Joaquin Poblete, Pontificia Universidad Católica de Chile

Parallel Session Three B—Location, Location, Location
(Wieboldt Hall #250)
Session Chair: Pere Arqué-Castells, Searle Center on Law, Regulation, and Economic Growth, Northwestern Pritzker School of Law

Innovation Below North Dakota
Zack Liu, C.T. Bauer College of Business, University of Houston*
Avishai Schiff, University of Texas, Austin
Nathan Swem, Economist, Board of Governors, Federal Reserve System
Discussant: Christopher Tucci, Ecole Polytechnique Federale de Lausanne

Technological Opportunity and the Locus of Innovation: Airmail, Aircraft, and Local Capabilities
Robert Seamans, Leonard N. Stern School of Business, New York University
Eunhee Sohn, Scheller College of Business, Georgia Institute of Technology*
Daniel B. Sands, Leonard N. Stern School of Business, New York University
Discussant: Michal Grajek, ESMT Berlin

Pricing of Complements in the U.S. Freight Railroads: Cournot versus Coase
Alexei Alexandrov*
Russell Pittman, U.S. Department of Justice
Olga Ukhaneva, Georgetown University
Discussant: E. Mark Curtis, Department of Economics, Wake Forest University

Thinking Outside the Box: Cross-border Effects of Tax Cuts for Intellectual Property
Maximilian Todtenhaupt, University of Mannheim and ZEW
Thomas Schwab, University of Mannheim, WU Vienna and ZEW*
Discussant: Olga Ukhneva, Managing Consultant, Navigant Consulting and Senior Visiting Policy Scholar, Center for Business and Public Policy, Georgetown

5:00-6:00  Cocktail Reception (Wieboldt Hall #440)
6:00     Dinner (Wieboldt Hall #540)
7:00     Keynote Address

Introduction
Daniel F. Spulber, Kellogg School of Management, Northwestern University

Economics is the Only Path to Coherence
Luke Froeb, Deputy Assistant Attorney General for Economics, U.S. Department of Justice Antitrust Division; William C. Oehmig Chair of Free Enterprise and Entrepreneurship, Vanderbilt’s Owen Graduate School of Management.
**Friday, June 22**

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

9:00-11:00  **Session Four—Innovation and Intellectual Property** (Wieboldt Hall #147)

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

*How Does Product Liability Risk Affect Innovation? Evidence From Medical Implants*

**Hong Luo**, Harvard Business School*

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

Discussant: **Rosemarie Ziedonis**, Questrom School of Business, Boston University

*The Elasticity of Science*

**Kyle Myers**, National Bureau of Economic Research

Discussant: **Benjamin Balsmeier**, University of Luxembourg

*What Explains Intellectual Property Use in Chile and Does It Make a Difference?*

**Christian Helmers**, Santa Clara University*

**Carsten Fink**, World Intellectual Property Organization

**Bronwyn H. Hall**, Department of Economics, University of California, Berkeley

Discussant: **Roberto Álvarez**, Universidad De Chile

*Easy to Keep, But Hard to Find: How Patentable Inventions Are Being Kept Secret*

**David T. Angenendt**, Department of Economics, University of Bologna

Discussant: **Lubomir P. Litov**, University of Oklahoma, Michael F. Price College of Business

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

11:15-12:45  **Parallel Session Five A—Science and Experience** (Wieboldt Hall #147)

Session Chair: **Georgios Effraimidis**, Qualcomm Inc.

*The Value of Insiders: Evidence from the Effects of NSF Rotators on Early Career Scientists*

**Christos Kolympiris**, Warwick Business School, University of Warwick*

**Sebastian Hoenen**, Rotterdam School of Management

Discussant: **Eunhee Sohn**, Scheller College of Business, Georgia Institute of Technology

*Amateurs*

**Kevin Boudreau**, Northeastern University and NBER

Discussant: **Laurina Zhang**, Scheller College of Business, Georgia Institute of Technology

*Science Is Shaped by Wikipedia: Evidence from a Randomized Control Trial*

**Neil Thompson**, MIT Sloan School of Management*

**Douglas Hanley**, University of Pittsburgh
Discussant: **Arvids Ziedonis**, Questrom School of Business, Boston University

**Parallel Session Five B—Financing Innovation and Entrepreneurship**  
(Wieboldt Hall #250)  
Session Chair: **Ramy Elitzur**, Rotman School of Management, University of Toronto

*Off-Balance Sheet Securitization, Bank Lending, and Corporate Innovation*  
**Zhaoxia Xu**, School of Banking and Finance, UNSW Business School*  
**Yiwei Dou**, New York University  
Discussant: **Jing Huang**, Pamplin College of Business, Virginia Tech

*Herding in Equity Crowdfunding*  
**Thomas Åstebro**, HEC Paris*  
**Manuel Fernández**, Economics Department, Oxford University  
**Stefano Lovo**, HEC Paris  
**Nir Vulkan**, Said Business School, Oxford University  
Discussant: **Artyom Jelnov**, Economics and Business Administration Department, Ariel University

*Competition in the Venture Capital Market and the Success of Startup Companies: Theory and Evidence*  
**Suting Hong**, School of Entrepreneurship and Management, ShanghaiTech University*  
**Konstantinos Serfes**, School of Economics, LeBow College of Business, Drexel University  
**Veikko Thiele**, Smith School of Business, Queen’s University  
Discussant: **Elvira Sojli**, UNSW Business School

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

1:30-3:00 **Session Six—Patents** (Wieboldt Hall #147)  
Session Chair: **Andrew A. Toole**, U.S. Patent and Trademark Office

*How Redeployable are Patent Assets? Evidence from Failed Startups*  
**Carlos J. Serrano**, Universitat Pompeu Fabra and Barcelona GSE*  
**Rosemarie Ziedonis**, Questrom School of Business, Boston University and NBER  
Discussant: **Nathan Swem**, Economist, Board of Governors, Federal Reserve System

*Getting International Patents: Does the Quality of Patent Attorney Matter?*  
**Beth Webster**, Swinburne University of Technology, Melbourne, Australia*  
**Gaétan de Rassenfosse**, Ecole polytechnique fédérale de Lausanne  
**Paul H. Jensen**, The University of Melbourne, Melbourne  
**T’Mir D. Julius**, Swinburne University of Technology, Melbourne, Australia  

*Patent Validity Challenges and The America Invents Act*  
**Talia Bar**, Department of Economics, University of Connecticut*  
**Brendan Costello**, Department of Economics, Yale University  
Discussant: **Avik Chakrabarti** Department of Economics, UWM
3:00  Adjourn

*Presenters are indicated with an *