

# Second Annual Empirical Conference on Standardization

Thursday, May 5, 2022 — Friday, May 6, 2022

Northwestern University—Wieboldt Hall

340 E. Superior Street, Chicago, IL 60611

*Organized by Justus Baron*

## Thursday, May 5<sup>th</sup>

8:30 a.m. **Registration Check-In**

8:30 to 9:15 **Breakfast**

9:15 to 9:20 **Welcome and Introduction**

**Justus Baron**, Senior Research Associate, Innovation Policy  
Research Project, Northwestern Center on Law, Business, and  
Economics

9:20 to 10:30 **Session 1 — Economic Effects of Mobile Telecommunication Standards**  
(20-minute presentation/each followed by 5 minute discussant, then 10 minute open discussion)

*Uniform vs Competing Standards: A Structural Analysis of the U.S.  
Wireless Telecommunications Industry*

**Michela Bonani**, PhD Candidate, Department of Economics, Tilburg  
University

Discussant: **Doyoung Eom**, Eindhoven University of Technology

*Welfare Effects of Mobile Broadband Internet*

**Pau Castells**, Head of Economic Analysis, GSMA

Discussant: **Lennart Schott**, Research Fellow and PhD Student,  
Leibniz University Hannover

10:30 to 10:45 a.m. **Break**

10:45 to 12:15 p.m. **Session 2 — Panel Discussion on Standardization Strategies and Geopolitical Challenges**

**Moderator: Justus Baron**, Senior Research Associate, Innovation Policy Research Project, Northwestern Center on Law, Business, and Economics

**Tim Rühlig**, Research Fellow, German Council on Foreign Relations (DGAP)

**Alissa Cooper**, CTO and VP, Cisco

**Claire Vishik**, Intel Fellow; Leader in Emerging Technology and Policy, Intel Corporation

12:15 to 1:15 **Lunch**

1:15 to 2:15 **Session 3 — China's Role in the Global ICT Standardization Ecosystem**  
(20-minute presentation/each, 20 min joint open discussion)

*China in the Global Governance of Electro-Technology through Technical Standards*

**Tim Bütke**, Professor and Chair for International Relations, Technical University of Munich

*Evaluating the Impact of National Deviating Technical Standards*

**Sabrina Weithmann**, Professor, Aschaffenburg University of Applied Sciences (AUAS)

2:15 to 3:30 **Session 4 — Standardization Processes**

(20-minute presentation/each, 5 min discussant, then 10 minute open discussion)

*Chinese Latecomers in International ICT Standardization - How Origin and Experience Impact the Acceptance of Technological Contributions*

**Lennart Schott**, Research Fellow and PhD Student, Leibniz University Hannover

Discussant: **Tatiana Rosa**, Assistant Professor, Economic Department of Pontificia Universidad Católica de Chile

*Competition for Leadership Positions in Standards Development Organizations*

**Justus Baron**, Senior Research Associate, Innovation Policy Research Project, Northwestern Center on Law, Business, and Economics

Discussant: **Paul Wiegmann**, Department of Industrial Engineering & Innovation Sciences, Innovation, Technology Entrepreneurship & Marketing (ITEM), Eindhoven University of Technology

3:30 to 3:45

**Break**

3:45 to 5:00

**Session 5 — Societal Aspects of Standardization**

*(20-minute presentation/each followed by 5 minute discussant, then 10 minute open discussion)*

*Representation is Not Enough to Choose Gender Diversity*

**Nicola Persico**, Professor of Managerial Economics and Decision Sciences, Kellogg School of Management, Northwestern University

Discussant: **Michela Bonani**, PhD Candidate, Department of Economics, Tilburg University

*Measuring the Societal Impact of Standardization*

**Paul Wiegmann**, Assistant Professor, Department of Industrial Engineering & Innovation Sciences, Innovation, Technology Entrepreneurship & Marketing (ITEM), Eindhoven University of Technology

Discussant: **Julie Carlson**, Information Technology and Innovation Foundation

5:00 to 6:00

**Cocktail Reception**

6:00

**Dinner**

**Friday, May 6<sup>th</sup>**

8:00 a.m.                   **Breakfast** (WB 540)

8:45 to 10:15           **Session 5 — Panel Discussion - Forum Competition for the Resolution of SEP Licensing Disputes**

**Moderator: David L. Schwartz**, Associate Dean of Research and Intellectual Life, Frederic P. Vose Professor of Law, Northwestern Pritzker School of Law

**Jorge L. Contreras**, Presidential Scholar and Professor of Law, University of Utah S.J. Quinney College of Law

**Mark A. Cohen**, Distinguished Senior Fellow and Director, Asia IP and Technology Law Project, Berkeley Center for Law and Technology

**Amandine Léonard**, Early Career Fellow in Intellectual Property Law, The University of Edinburgh, Edinburgh Law School

10:15 to 10:30           **Break**

10:30 to 11:40 a.m.   **Session 6a — SEPs**

*(20-minute presentation/each followed by 5 minute discussant, then 10 minute open discussion)*

*An Empirical Test of Patent Hold-Out Theory: Evidence from Litigation of Standard Essential Patents*

**Christian Helmers**, Associate Professor of Economics, Leavey School of Business, Santa Clara University

Discussant: **Pere Arqué-Castells**, Assistant Professor, Innovation Management and Strategy, University of Groningen

*Precision and Bias in the Assessment of Essentiality Rates in Firms' Portfolios of Declared SEPs*

**Tim Pohlmann**, Managing Director, IPlytics GmbH

Discussant: **Christian Helmers**, Associate Professor of Economics, Leavey School of Business, Santa Clara University

11:40 to 12:30 p.m. **Session 6b — SEPs (descriptive papers)**  
(15-minute presentation/each followed by 5 minute discussant, then 10 minute open discussion)

*Firms' Involvement in Standardization and Average Total Costs per Patent Family*

**Yanis Gamarra**, PhD Candidate, Technical University of Munich, TUM School of Management, Chair of Management Accounting

Discussant: **Hieu Luu**, Competition Dynamics

*Development of 5G – Identifying Organizations Active in Publishing, Patenting, and Standardization*

**Magnus Buggenhagen**, Technical University of Berlin

Discussant: **Rushi Pandya**, Purdue Polytechnic, Purdue University

12:30 to 1:15 **Lunch**

1:15 to 2:25 **Session 7a –Standards, Patents, and Innovation**  
(20-minute presentation/each followed by 5 minute discussant, then 10 minute open discussion)

*Patents that Match your Standards: Firm-level Evidence on Competition and Innovation*

**Riccardo Zago**, Economist, Banque de France; Research Associate at College de France, Innovation Lab

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

*Standards in the Innovation of Converging Industries: A Social Network Analysis of ITS Communication Standards*

**Doyoung Eom**, Postdoc Researcher, Eindhoven University of Technology

Discussant: **Sik Chung**, The University of Texas at Austin, McCombs School of Business

2:25 to 3:15

**Session 7b –Standards, Patents, Innovation – Early Research Projects**  
(15-minute presentation/each followed by 10 min open discussion)

*Government-Sponsored Research and Technical Standards:  
Evidence from Standard-Essential Patents*

**Emilio Raitieri**, Assistant Professor, School of Innovation Sciences,  
Eindhoven University of Technology

*The Effects of Section 101 Patent Subject Matter Eligibility Doctrine  
on Technologies Relevant to National Security*

**Georgios Effraimidis**, Senior Manager of Economic Strategy,  
Qualcomm

3:15 p.m.

**Adjourn**

**Confirmed Conference Participants (as of 4/25/2022):**

1. **Pere Arqué-Castells**, University of Groningen
2. **Justus Baron**, Center on Law, Business, and Economics Northwestern Pritzker School of Law
3. **Sebastian Benthall**, Information Law Institute, New York University School of Law
4. **Santiago Bergallo**,
5. **Michela Bonani**, Department of Economics, Tilburg University
6. **Awo Bos**, Manager, Competition Dynamics
7. **Magnus Buggenhagen**,
8. **Tim Bütke**, Technical University of Munich
9. **Julie Carlson**, Information Technology and Innovation Foundation
10. **Pau Castells**, GSMA
11. **Qingqing Chen**, Wharton School of the University of Pennsylvania
12. **Sik Chung**, The University of Texas at Austin, McCombs School of Business
13. **Mark A. Cohen**, Berkeley Center for Law and Technology
14. **Jorge L. Contreras**, University of Utah S.J. Quinney College of Law
15. **Alissa Cooper**, Cisco Systems
16. **Georgios Effraimidis**, Qualcomm
17. **Maria Soledad Elli**, Data Scientist, Corporate Strategy Office, Intel Corporation
18. **Doyoung Eom**, Eindhoven University of Technology
19. **Yanis Gamarra**, Technical University of Munich, TUM School of Management, Chair of Management Accounting
20. **Marie Gerardy**, University of Luxembourg
21. **Christian Helmers**, Associate Professor of Economics, Leavey School of Business, Santa Clara University
22. **Moh Hosseinioun**, Research Fellow, Northwestern Institute on Complex Systems (NICO) and Kellogg School of Management.
23. **John Kolakowski**, Director, Patent Licensing, Head of IP Regulatory Affairs, North America, Nokia Technologies

24. **Jorge Lemus**, University of Illinois Urbana-Champaign, Department of Economics
25. **Amandine Léonard**, The University of Edinburgh, Edinburgh Law School
26. **Hieu Luu**, Competition Dynamics
27. **Simona Mateut**, Business School, University of Nottingham
28. **Cristhian Molina**, PhD Candidate, University of Illinois Urbana-Champaign, Department of Economics
29. **Rushi Pandya**, Purdue Polytechnic, Purdue University
30. **Nicola Persico**, Kellogg School of Management, Northwestern University
31. **Tim Pohlmann**, IPlytics GmbH
32. **Emilio Raiteri**, School of Innovation Sciences, Eindhoven University of Technology
33. **Tatiana Rosa**, Economic Department of Pontificia Universidad Católica de Chile
34. **Tim Rühlig**, German Council on Foreign Relations (DGAP)
35. **Puneet Sachdeva**, The University of Texas at Austin, McCombs School of Business
36. **Lennart Schott**, Leibniz University Hannover
37. **David L. Schwartz**, Northwestern Pritzker School of Law
38. **Matthew L. Spitzer**, Center on Law, Business, and Economics Northwestern Pritzker School of Law
39. **Claire Vishik**, Intel Fellow; Leader in Emerging Technology and Policy, Intel Corporation
40. **Sabrina Weithmann**, Aschaffenburg University of Applied Sciences (AUAS)
41. **Paul Wiegmann**, Department of Industrial Engineering & Innovation Sciences, Innovation, Technology Entrepreneurship & Marketing (ITEM), Eindhoven University of Technology
42. **Hyejin Youn**, Kellogg School of Management at Northwestern University
43. **Riccardo Zago**, Research Economist, Banque de France