

Curriculum Vitae of Mung Chiang

Address

B328, Engineering Quad, Olden Street, Princeton, NJ 08544, USA
Email chiangm@princeton.edu
Phone (609)240-6941 (609) 258-5071 Fax (609) 258-2158

Education

2003 Stanford University, Ph.D. in Electrical Engineering
2000 Stanford University, M. S. in Electrical Engineering
1999 Stanford University, B. S. (Honors) in Electrical Engineering and Mathematics

Appointments

2014- Director, Keller Center for Innovations in Engineering Education
Chair, Engineering School Curriculum Committee
Director, Technology and Society Program
2014- Chair, Princeton University Entrepreneurship Advisory Committee
2013- Arthur LeGrand Doty Professor of Electrical Engineering, Princeton University
2011-13 Professor of Electrical Engineering, Princeton University
2008-11 Associate Professor of Electrical Engineering, Princeton University
2003-08 Assistant Professor of Electrical Engineering, Princeton University
2005- Affiliated Faculty of Applied and Computational Mathematics
2006- Associated Faculty of Computer Science

Research Areas

- Optimization of networks, network utility maximization, network function optimization
- Smart data pricing and network economics
- Fog networking and Internet of Things
- Social learning networks and online social networks
- Founded the Princeton EDGE Lab in 2009
- H-index of publication citation in Google Scholar: 55

Awards

2014-15 Guggenheim Fellow
2015 IEEE INFOCOM Best Paper Runner-up
2014 New Jersey (non-profit) CEO of the Year
2014 INFORMS Information Systems Design Science Award
2014 Yelp Open Data Challenge Grand Prize Paper
2013 NSF **Alan T. Waterman Award**, with the citation “for fundamental contributions to the analysis, design, and optimization of wireless networks.”
2013 ASEE Frederick E. Terman Award for education innovation
2013 IEEE SECON Best Paper Award
2013 Association of American Publishers PROSE Award in Science and Technology
2012 IEEE Kiyo Tomiyasu Award, with the citation “for demonstrating the practicality of a new theoretical foundation for the analysis and design of communication networks.”
2012 Elected to IEEE Fellow

2012 IEEE INFOCOM Best Paper Award
2012 IEEE Communication Society Distinguished Lecturer
2009 2 IEEE GLOBECOM Best Paper Awards
2008 Presidential Early Career Award for Scientists and Engineers, White House OSTP
2008 Selected Participant, National Academy of Engineering Frontiers of Engineering Symposium
2007 TR35 Young Innovator Award, Technology Review Magazine (35 top innovators in biology, information, and material technologies in the world under the age of 35)
2007 Young Researcher Competition Runner-up, Mathematical Programming Society (one of 3 researchers in continuous optimization under the age of 35, selected once every 3 years)
2007 Young Investigator Award, Office of Naval Research
2007 Princeton Engineering Commendation List of Teaching
2006 Lead author of ISI Citation Fast Breaking Paper in Computer Science
2006 Co-author of IEEE GLOBECOM Best Student Paper Award
2005 Howard B. Wentz Junior Faculty Award, Princeton University
2005 CAREER Award, National Science Foundation
1999-03 Hertz Foundation Fellow
1999-03 Stanford Graduate Fellow
1999-02 National Science Foundation Graduate Fellowship
1999 Terman Award for Scholastic Excellence in Engineering, Stanford University
1999 Tau Beta Pi National Engineering Honors Society

University Leadership:

- Director of Keller Center for Innovation in Engineering Education, a department in Engineering School offering dozens of courses, many student/faculty programs, and ~60 events each year.
- Inaugural Chairman of Princeton Entrepreneurship Advisory Committee (PEAC), a university committee consisting of 19 faculty, student, staff and alumni members, reporting to Provost
- Within the first year of taking on these two responsibilities:
 - Opened the first Entrepreneurship Hub incubator at Princeton, increasing entrepreneurship space from 2,000 sqft to 12,000 sqft.
 - Launched the Alumni Entrepreneurship Fund, the first direct investment entrepreneurship funding in Princeton's history.
 - Completed multi-million dollars of prior pledge, raised another ~\$5M new donation from alumni, built a deep pipeline of upcoming alumni donation.
 - Doubled the headcount of full time staff at Keller Center.
 - Sharpened branding (<http://kellercenter.princeton.edu>), consolidated operations, carried out self-study with ~1000 students, faculty, alumni, partnered with NJ/NY ecosystem, and released the PEAC Report of "Entrepreneurship the Princeton Way" that positions a broadly defined entrepreneurship in Princeton's liberal arts environment.
 - Initiated new programs such as Industry Engagement Evenings, Local Investor Pitch Night, Startup Internship Matching, Entrepreneurship 101 course, eWorkshop series, Design Thinking program (joint with the Art Museum and School of Architecture).
- Also serving as Chair of Engineering School Curriculum Committee, and as Director of the Technology and Society Program (joint with Woodrow Wilson School of Public Affairs).
- Named New Jersey Non-Profit CEO of the Year 2014.

Industry Leadership:

- Founding Co-Chair of Fog Networking Consortium, a new academia-industry consortium with leading companies such as Cisco and Microsoft.
- Co-founder of several VC-funded startup companies in networking and in big data.
- Founding CEO of DataMi, now headquartered near Boston, the leading technology provider of “open toll-free” solutions for mobile operators in US, India and Africa.

Keynote Speech and Plenary Talk

- *National Chiao Tung University Global Ventures Summit*, 2014
- *University of Miami Jury Lecture*, 2013
- *ACM Sigmetrics NetEcon Workshop*, 2013
- *New Jersey Technology Council Annual Commercialization Conference*, 2012, Delaware
- *IEEE GLOBECOM Plenary Panel* 2010, Miami, FL
- *Southern California Conference on Network Economics and Game Theory*, Los Angeles, CA
- *International Symposium of Modeling and Optimization (MOPTA)* 2010, Lehigh, PA
- *K. U. Leuven 15th Simon Stevin Lecture on Optimization and Engineering* 2010, Leuven, Belgium
- *IEEE INFOCOM Plenary Panel* 2010, San Diego, CA
- *MIT Laboratory of Information and Decision Systems Annual Student Conference* 2010, Cambridge, MA
- *IEEE International Symposium on Modeling and Optimization of Wireless Networks (WiOpt)* 2009, Seoul, Korea
- *IEEE Sensor Array and Multichannel Signal Processing (SAM) Workshop* 2008, Darmstadt, Germany
- *IEEE Resource Allocation in Wireless Networks (RAWNET) Workshop* 2007, Cyprus

Services to Professional Societies

Program/Committee Chairmanship

- **Founding Steering Committee Chair, *IEEE Transactions on Network Science and Engineering*, 2013—14**
- General Co-Chair, *Smart Data-Pricing (SDP) Industry Forum*, 2012, 2015.
- TPC Co-Chair, *IEEE INFOCOM SDP Workshop*, 2013, 2014.
- General Co-Chair, *IEEE 9th International Symposium on Modeling and Optimization of Mobile, Ad Hoc, and Wireless Networks (WiOpt)*, June 2011.
- Program Co-Chair, *IEEE Workshop on Online Social Networks*, June 2011.
- Program Co-Chair, *38th Conference on Information Science and Systems*, March 2004, 2016.
- Founding General Co-Chair, *First ACM MobiHoc Student Workshop on Wireless Networking*, May 2009. Steering Committee, *ACM MobiHoc Student Workshop on Wireless Networking*, 2010 – now.
- Founding Organizer, *CISS Invited Track on Network Optimization*, 2006 – now.

Editorship

- Co-Editor, *National IT R&D Report on Complex Engineered Networks*, 2013.
- Editor at Large, *IEEE Transactions on Networking*, 2014—Now.
- Associate Editor, *Operations Research*, 2012—14.
- Lead Guest Editor, *IEEE Journal of Selected Areas in Communications* Special Issue on “Nonlinear Optimization of Communication Systems”, August 2006.
- Guest Editor, *IEEE Transactions on Information Theory and IEEE/ACM Transactions on Networking* Joint Special Issue on “Networking and Information Theory”, June 2006.
- Associate Editor, *IEEE Transactions on Wireless Communications*, 2006-2008.

- Associate Editor, *IEEE Transactions on Communication*, 2008-2010.
- Associate Editor, *Springer Journal of Optimization and Engineering*, 2008 -- .
- Book Series Co-editor, *Springer Series on Optimization and Control of Communication Systems*, 2007 – Now.

Technical Program Committee

- Technical Program Committee Member, *ACM Sigcomm 2015*, *IEEE INFOCOM* 2006-2010, *ACM MobiHoc* 2007, *IEEE ICNP 2009*, *IEEE ISIT 2009*, *IEEE WiOpt* 2006-2007, *IEEE ICC* 2004-2005, *IEEE GLOBECOM* 2004-2006, *IEEE WICON 2008*, *IEEE PCCCC* 2006, *IEEE CollaborateComm* 2005, *International Conference on Duality, Complementarity, and Global Optimization* 2007.

Conference Organization

- Panel Chair, *First ACM Workshop on Medical Grade Wireless Networking*, May 2009.
- Student Paper Award Co-Chair, *Sarnoff Symposium*, 2006.
- Co-Chair, *DIMACS Princeton-Rutgers Seminar Series on Computational Information Theory and Coding*, 2004. Chair, *Cisco Speaker Series on New Paradigms of Networking Research*, Princeton University, 2003-2004.
- Tutorial: *IEEE GLOBECOM* 2004, *INFOCOM* 2005, *ISIT* 2006.
- Invited Session Co-Chair, *IEEE Control and Decision Conference* 2004, *IEEE Computer Communications Workshop* 2005, *International Conference on Complementarity, Duality, and Global Optimization* 2005, 2007, *ACM Sigmetrics Hot Topic Session* 2005, *INFORMS Annual Meeting* 2005, 2006, *Conf. Inform. Science and Systems* 2006, 2008, *IEEE Communication Theory Workshop* 2007, *IEEE International Conference on Acoustic, Speech, and Signal Processing* 2007, *International Conference on Continuous Optimization* 2007.

Other Services

- Member, IEEE Fellow Communications Society Committee, 2015—Now.
- Member, IEEE Tomiyasu Award Committee, 2013—Now.
- Chair, *Award Subcommittee of IEEE Multimedia Communication Technical Committee*, 2010-
- Proposal reviewer, *NSF CISE CCF and CNS Division*, 2005-2013.
- Proposal reviewer, *ARO, ONR, AFOSR and AAAS*, 2007-2013.
- Proposal reviewer, *Canadian National Science and Engineering Research Council* 2006.
- Proposal reviewer, *Hong Kong Government Grant Council* 2006-2012.
- Proposal reviewer, *NYU Abu Dhabi Institute*, 2010.

Services to Princeton University

Princeton University

- **Director, Keller Center for Innovations in Engineering Education, 2014 – now.**
- **Chair, Princeton Entrepreneurship Advisory Committee (PEAC), 2014—now.**
- **Chair, University Committee on Classroom Design, 2013.**
- Executive Committee, Certificate in Applications of Computing, 2011 – 2013.
- Executive Committee, Certificate in Information Technology and Policy, 2011 – 2013.
- Graduate School Curriculum Subcommittee, 2010 – 2012.
- Graduate School Awards Subcommittee, 2013 – now.
- Graduate School Student Life and Discipline Subcommittee 2009 – 2010.
- University Committee on Discipline 2006-2008.

School of Engineering and Applied Sciences

- Project X Proposal Review Committee 2009.
- Executive Committee of Strategic Planning on Information Technology 2003-2004.

Electrical Engineering Department

- **Director of Graduate Studies, 2009 – 2014.**
- Executive Committee, 2012 – now.
- Information Science and Systems group coordinator 2006-2007, 2008-2009.
- ISS Seminar coordinator, 2003-2004, 2008.
- EE IT Hiring Committee, 2008-2009.
- Department academic advisor to 18 first year ISS graduate students 2003-2012.
- Department academic advisor to 6 undergraduate students in Class of 2007 and 8 undergraduate in Class of 2015.
- Freshman advisor to 12 freshman students 2008 and to 8 freshman students 2009.

Teaching Summary

- **MOOC: 2012—now. Over 250,000 students enrolled in *Networks: Friends, Money, and Bytes*.**
- ELE381/COS381: *Networks: Friends, Money, and Bytes*. Fall 2011. In this new interdisciplinary course created in 2011, we cut across the fundamentals of social, economic, and technological networks and teach them in a Just-in-Time way. The course is leading to an undergraduate textbook 20 Questions About Networked Life to be published by Cambridge University Press. Course materials have already started being adopted by other universities, such as Cornell University, George Washington University, University of Miami, Chinese University of Hong Kong, and Hong Kong University Science and Technology.
- Fall 2012 – now: “Flipped” the first engineering classroom at Princeton.
- ELE539A: *Optimization of Communication Systems: Methodologies and Applications*. Spring 2004-2011 (new course created in 2004). Lecture notes have been adopted in courses at other institutions including MIT, Cornell, Georgia Tech, Purdue, University of Washington, University of Toronto, Chinese University of Hong Kong, and Hong Kong University of Science and Technology.
- ELE382: *Distributed Algorithms and Optimization Methods for Engineering Applications*. Fall 2004-2009 (new version created in 2004).
- ELE519: *Information Science and Systems Seminar* 2003-2004, 2008.
- ELE514: *Extramural Research Internship* 2009-2012.
- ELE597/598: *Master’s Project* 2009-2012.
- Average teaching evaluation score: 4.5/5.0.
- NSF Combined Research and Curriculum Development Award 2004-2006.
- School of Engineering Teaching Commendation List 2007.

Research Advisees

Post-doctoral Advisees (20)

- Dr. Jang-Won Lee (2004 – 2005, Now tenured Associate Professor in School of EE, Yonsei University, Korea) Joint with Calderbank.

Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.