Xiaohan Kang

Contact Information

University of Illinois at Urbana–Champaign
128 Coordinated Science Lab (CSL), 1308 W Main St, Urbana, IL 61801
Website: `https://sites.google.com/site/xiaohankanghome/`
Email: `xiaohank@illinois.edu` **Phone:** (515) 509-6693

Research Interests

Bioinformatics, algorithm design and analysis,
resource allocation in data networks, game theory

Current Appointment

Postdoctoral Research Associate, Mar. 2016–Present

University of Illinois at Urbana–Champaign, Urbana, Illinois
Coordinated Science Laboratory
Advisor: Prof. Bruce Hajek

Education

Arizona State University, Tempe, Arizona
Ph.D., Electrical Engineering, 2015
Advisor: Prof. Lei Ying

Iowa State University, Ames, Iowa
M.S., Electrical Engineering, 2012
Advisor: Prof. Lei Ying

Tsinghua University, Beijing, China
B.E., Electronic Engineering, 2009

Honers and Awards

INFOCOM Best Paper Award, 2015
Coauthors: Lei Ying and R. Srikant

The First Place Team, Cisco Intern Hackathon, 2015

University Graduate Fellowship, Arizona State University, 2014

Schafer 2050 Challenge Graduate Fellowship, Iowa State University, 2010

Presentations

"On the challenge of gene regulatory network reconstruction from high-throughput sequencing data", IMaCCS Workshop, The Ohio State University, Columbus, OH, June 2018

"On the challenge of gene regulatory network reconstruction from high-throughput sequencing data", Network Science Seminar Series, Arizona State University, Tempe, AZ, April 2018

"CausNet: a causal inference algorithm for gene regulatory network reconstruction", The Plant and Animal Genome XXVI Conference (PAG 2018), San Diego, CA, January 2018

"The power of slightly more than one sample in randomized load balancing", SINE Seminar, University of Illinois at Urbana–Champaign, Urbana, IL, March 2016

"The power of slightly more than one sample in randomized load balancing", talk in a queueing class, IEOR Department, University of California at Berkeley, Berkeley, CA, February 2016

"The power of slightly more than one sample in randomized load balancing", INFORMS Annual Meeting, Philadelphia, PA, November 2015

"A strategy-proof and non-monetary admission control mechanism for wireless access networks", School of Information Theory, University of Southern California, Los Angeles, CA, August 2010

Journal Publications

J3. Lei Ying, R. Srikant, and Xiaohan Kang, "The power of slightly more than one sample in randomized load balancing," *Math. Oper. Res.*, vol. 42, no. 3, pp. 692–722, 2017. https://doi.org/10.1287/moor.2016.0823

J2. Xiaohan Kang, Weina Wang, Juan José Jaramillo, and Lei Ying, "On the performance of largest-deficit-first for scheduling real-time traffic in wireless networks," *IEEE/ACM Trans. Netw.*, vol. 24, pp. 72–84, Feb. 2016. https://doi.org/10.1109/TNET.2014.2360365

J1. Xiaohan Kang, Juan José Jaramillo, Lei Ying, "Stability of longest-queue-first scheduling in linear wireless networks with multihop traffic and one-hop interference," *Queueing Syst.*, vol. 80, no. 3, pp. 273–291, Jul. 2015. http://doi.org/10.1007/s11134-015-9441-2

Conference Publications

C6. Xiaohan Kang, I-Hong Hou, and Lei Ying, "On the capacity requirement of largest-deficit-first for scheduling real-time traffic in wireless networks," in *Proc. 16th ACM Int. Symp. Mobile Ad Hoc Networking and Computing (MobiHoc 2015)*, pp. 217–226, Hangzhou, China, Jun. 2015. https://doi.org/10.1145/2746285.2746302 **(14.8% acceptance rate)**

C5. Lei Ying, R. Srikant, and Xiaohan Kang, "The power of slightly more than one sample in randomized load balancing," in *Proc. IEEE Conf. on Computer Communications (INFOCOM 2015)*, pp. 1131–1139, Kowloon, Hong Kong, Apr.–May 2015. https://doi.org/10.1109/INFOCOM.2015.7218487 **(19.3% acceptance rate)**
Best Paper Award

C3. Xiaohan Kang, Juan José Jaramillo, and Lei Ying, "Stability of Longest-Queue-First Scheduling in Linear Wireless Networks with Multihop Traffic and One-Hop Interference," in *Proc. 52nd Annu. Conf. on Decision and Control (CDC 2013)*, pp. 3312–3317, Florence, Italy, Dec. 2013. https://doi.org/10.1109/CDC.2013.6760389

C4. Xiaohan Kang, Weina Wang, Juan José Jaramillo, and Lei Ying, "On the performance of largest-deficit-first for scheduling real-time traffic in wireless networks," in *Proc. 14th ACM Int. Symp. on Mobile Ad Hoc Networking and Computing (MobiHoc 2013)*, pp. 99–108, Bangalore, India, Jul.–Aug. 2013. https://doi.org/10.1145/2491288.2491298 **(10.3% acceptance rate)**

C2. Xiaohan Kang, Juan José Jaramillo, and Lei Ying, "Impacts of peer churn on P2P streaming networks," in *Proc. 50th Annu. Allerton Conf. Communication, Control and Computing (Allerton 2012)*, pp. 1417–1424, Monticello, IL, Oct. 2012. https://doi.org/10.1109/Allerton.2012.6483384

C1. Xiaohan Kang, Juan José Jaramillo, "A strategy-proof and non-monetary admission control mechanism for wireless access networks," in *Proc. Int. Conf. Heterogeneous Networking for Quality, Reliability, Security and Robustness (QShine 2010)*, pp. 172–187, Houston, TX, Nov. 2010. https://doi.org/10.1007/978-3-642-29222-4_13

Teaching Experience

Instructor, ECE 313 (Probability with Engineering Applications) Section D (60+ students), University of Illinois at Urbana–Champaign, Fall 2017

Lab TA, EEE 455 (Communication Systems), Arizona State University, Spring 2015
Leads a session with 20+ students

Lab TA, EEE 455 (Communication Systems), Arizona State University, Fall 2014
Leads a session with 20+ students

Teaching Assistant, Cpr E 310 (Theoretical Foundations of Computer Engineering), Iowa State University, Fall 2009

Industry Experience	Internship in Data Center Core Software Group at Cisco Systems, Inc., San Jose, CA, Summer 2015
Professional Service	**Exemplary Reviewer**, IEEE Communications Letters, 2014
	Reviewer for IEEE/ACM Transactions on Networking, Queueing Systems, IEEE Transactions on Mobile Computing, IEEE Communications Letters, IEEE Transactions on Vehicular Technology, IEEE Signal Processing Letters