

Xin Liu

Contact Information	Arizona State University, 431 Goldwater Center, Tempe, AZ 85281 Website: https://liuxincell.github.io/ Email: liuxincell@gmail.com Phone: (+1)4802770515
Research Interests	Load balancing in data centers, scheduling in ride-sharing, routing in communication networks, and stochastic analysis and optimization.
Education	Arizona State University Ph.D. Student in Electrical Engineering, Aug. 2014 – Fall. 2019 Advisor: Prof. Lei Ying University of Chinese Academy of Sciences M.S. in Signal and Information Processing, Sept. 2011 – Jul. 2014 Advisor: Prof. Haibing Wang Hunan University B.E. in Electrical Engineering, Aug. 2007 – Jul. 2011
Presentations	“Fluid-Model-Based Car Routing for Modern Ridesharing Systems” - Poster at SIGMETRICS, Urbana-Champaign, Illinois, Jun., 2017 “On Achieving Zero Delay with Power-of- d -Choices Load Balancing” - INFORMS Annual Meeting, Houston, Texas, Oct. 2017 - INFOCOM, Honolulu, Hawaii, Apr. 2018 “Steady-State Analysis of Load Balancing Algorithms in the Sub-Halfin-Whitt Regime” - INFORMS Annual Meeting, Phoenix, Arizona, Nov. 2018 - Poster at NSF Cyber-Physical System Meeting, Alexandria, Virginia, Nov. 2018
Honors and Awards	INFOCOM paper invited for a fast review to IEEE Transactions on Network Science and Engineering (7 out of 312 accepted papers), 2018 Best Student Paper at CHINACOM, 2013 Excellent Bachelor Thesis, Hunan University, 2011
Working Papers	X. Liu and L. Ying. <i>On Universal Scaling of Distributed Queues under Load Balancing</i> . (Submitted to SIGMETRICS 2020). X. Liu and L. Ying. <i>Steady-State Analysis of Load Balancing Algorithms in the Sub-Halfin-Whitt Regime</i> . (Submitted to Journal of Applied Probability).
Journal Publications	A. Braverman, J. G. Dai, X. Liu , and L. Ying. <i>Empty-car routing in ridesharing systems</i> . Operations Research. Aug., 2019. X. Liu and L. Ying. <i>Spatial-temporal routing for supporting end-to-end hard deadlines in multi-hop networks</i> . Performance Evaluation. Jul., 2019. X. Liu and L. Ying. <i>On achieving zero delay with power-of-d-choices load balancing</i> . IEEE Transactions on Network Science and Engineering. Oct., 2018 X. Liu , F. Gao, G. Wang, and X. Wang. <i>Joint beamforming and user selection in multicast downlink channel under secrecy-outage constraint</i> . IEEE Communications Letters, Jan., 2014.

**Conference
Publications**

X. Liu and L. Ying. *A Simple Steady-State Analysis of Load Balancing Algorithms in the Sub-Halfin-Whitt Regime*. Mathematical Performance Modeling and Analysis Workshop in Sigmetrics, Irvine, California, Jun., 2018 .

X. Liu and L. Ying. *On achieving zero delay with power-of-d-choices load balancing*. In Proc. IEEE International Conference on Computer Communications (INFOCOM), Honolulu, Hawaii, Apr., 2018. Fast-Track Review for IEEE Transactions on Network Science and Engineering (7 out of 312 accepted papers were invited).

Y. Liu, **X. Liu**, L. Ying, and R. Srikant. *Wireless scheduling with deadline and power constraints*. 2018 Annual Conference on Information Science and Systems (CISS), Princeton, NJ, Mar., 2018.

A. Braverman, J. G. Dai, **X. Liu**, and L. Ying. *Fluid-model-based car routing for modern ridesharing systems*. (Poster) SIGMETRICS, Urbana-Champaign, Illinois, Jun., 2017.

X. Liu and L. Ying. *Spatial-temporal routing for supporting end-to-end hard deadlines in multi-hop networks*. 2016 Annual Conference on Information Science and Systems (CISS), Princeton, NJ, Apr., 2016.

X. Liu, H. Li, and H. Wang. *Probability constrained robust multicast beamforming in cognitive radio network*. 8th International Conference on Communications and Networking in China (CHINACOM), Guilin, Aug., 2013. (Best Student Paper)

**Industry
Experience**

Internship in Cardinal Operations (Shanshu), Inc., Shanghai, China, Summer, 2018

**Professional
Service**

Reviewer for IEEE/ACM Transactions on Networking, Performance Evaluation , IEEE Journal on Selected Areas in Communications, IEEE Communications Letters, Mobi-Hoc, INFOCOM, WiOpt.

Skills

Python, C/C++, Matlab, Mathematica, SQL, CVX, Gurobi, NumPy, Linux, L^AT_EX.