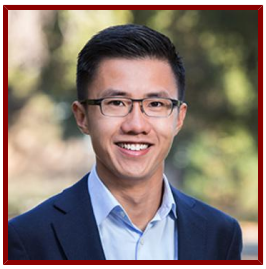
Stanford



Kuang Xu

Associate Professor of Operations, Information and Technology at the Graduate School of Business and, by courtesy, of Electrical Engineering

Operations, Information & Technology

Bio

BIO

Kuang Xu is an Associate Professor of Operations, Information and Technology at Stanford Graduate School of Business, and Associate Professor by courtesy with the Electrical Engineering Department, Stanford University. Born in Suzhou, China, he received the B.S. degree in Electrical Engineering (2009) from the University of Illinois at Urbana-Champaign, and the Ph.D. degree in Electrical Engineering and Computer Science (2014) from the Massachusetts Institute of Technology.

His research primarily focuses on understanding fundamental properties and design principles of large-scale stochastic systems using tools from probability theory and optimization, with applications in queueing networks, healthcare, privacy and machine learning. He received First Place in the INFORMS George E. Nicholson Student Paper Competition (2011), the Best Paper Award, as well as the Kenneth C. Sevcik Outstanding Student Paper Award at ACM SIGMETRICS (2013), and the ACM SIGMETRICS Rising Star Research Award (2020). He currently serves as an Associate Editor for Operations Research and Management Science.

ACADEMIC APPOINTMENTS

- Associate Professor, Operations, Information & Technology
- Associate Professor (By courtesy), Electrical Engineering

ADMINISTRATIVE APPOINTMENTS

- Associate Editor, Management Science, (2021- present)
- Associate Editor, Operations Research, (2018- present)

HONORS AND AWARDS

- Rising Star Research Award, ACM SIGMETRICS (2020)
- Best Paper Award, SIGMETRICS Conference (2013)
- Kenneth C. Sevcik Outstanding Student Paper Award, SIGMETRICS Conference (2013)
- First Place, George E. Nicholson Student Paper Competition, INFORMS (2011)

PROFESSIONAL EDUCATION

- Ph.D., Massachusetts Institute of Technology , Electrical Engineering and Computer Science (2014)
- S.M., Massachusetts Institute of Technology , Electrical Engineering and Computer Science (2011)
- B.S., University of Illinois at Urbana-Champaign , Electrical Engineering (2009)

LINKS

- Homepage: https://web.stanford.edu/~kuangxu/
- LinkedIn Profile: https://www.linkedin.com/in/kuangxu/
- Twitter: https://twitter.com/xu_kuang

Teaching

COURSES

2026-27

- AI and Data Science: Strategy and Entrepreneurship: OIT 551 (Spr)
- Charting Reality with Stochastic Modeling: OIT 611 (Win)
- Research in Operations, Information and Technology: OIT 644 (Win)

2025-26

- Chart Reality with Stochastic Modeling: OIT 677 (Spr)
- Optimization and Simulation Modeling: OIT 245 (Aut)

2023-24

- AI and Data Science: Strategy, Management and Entrepreneurship: OIT 351 (Win)
- Optimization and Simulation Modeling - Accelerated: OIT 247 (Aut)

STANFORD ADVISEES

Orals Chair

Zhiqiang Xie

Publications

PUBLICATIONS

- **Experimenting in Equilibrium** *MANAGEMENT SCIENCE*
  Wager, S., Xu, K.
  2021; 67 (11): 6694-6715
- **Private Sequential Learning** *OPERATIONS RESEARCH*
  Tsitsiklis, J. N., Xu, K., Xu, Z.
  2021; 69 (5): 1575-1590
- **Temporal concatenation for Markov decision processes** *PROBABILITY IN THE ENGINEERING AND INFORMATIONAL SCIENCES*
  Song, R., Xu, K.
  2021
- **Optimal query complexity for private sequential learning against eavesdropping**
  Xu, J., Xu, K., Yang, D.
  edited by Banerjee, A., Fukumizu, K.
  MICROTOME PUBLISHING.2021
- **Learner-Private Convex Optimization**
  Xu, J., Xu, K., Yang, D.
  edited by Meila, M., Zhang, T.
  JMLR-JOURNAL MACHINE LEARNING RESEARCH.2021
- **Reinforcement with Fading Memories** *MATHEMATICS OF OPERATIONS RESEARCH*

Xu, K., Yun, S.
2020; 45 (4): 1258–88

- **Information and Memory in Dynamic Resource Allocation** *OPERATIONS RESEARCH*
  Xu, K., Zhong, Y.
  2020; 68 (6): 1698–1715
- **No Detectable Surge in SARS-CoV-2 Transmission Attributable to the April 7, 2020 Wisconsin Election.** *American journal of public health*
  Leung, K. n., Wu, J. T., Xu, K. n., Wein, L. M.
  2020: e1–e2
- **Delay-Predictability Trade-offs in Reaching a Secret Goal** *Operations Research*
  Tsitsiklis, J. N., Xu, K.
  2018
- **Query Complexity of Bayesian Private Learning**
  Xu, K.
  edited by Bengio, S., Wallach, H., Larochelle, H., Grauman, K., CesaBianchi, N., Garnett, R.
  NEURAL INFORMATION PROCESSING SYSTEMS (NIPS).2018
- **On the Capacity of Information Processing Systems** *Operations Research*
  Massoulié, L., Xu, K.
  2018
- **Flexible Queueing Architectures** *Operations Research*
  Tsitsiklis, J. N., Xu, K.
  2017; 65 (5)
- **Using Future Information to Reduce Waiting Times in the Emergency Department via Diversion** *M&SOM-MANUFACTURING & SERVICE OPERATIONS MANAGEMENT*
  Xu, K., Chan, C. W.
  2016; 18 (3): 314-331
- **Necessity of Future Information in Admission Control** *OPERATIONS RESEARCH*
  Xu, K.
  2015; 63 (5): 1213-1226
- **THE OPTIMAL ADMISSION THRESHOLD IN OBSERVABLE QUEUES WITH STATE DEPENDENT PRICING** *PROBABILITY IN THE ENGINEERING AND INFORMATIONAL SCIENCES*
  Borgs, C., Chayes, J. T., Doroudi, S., Harchol-Balter, M., Xu, K.
  2014; 28 (1): 101-119
- **Queuing with future information** *The Annals of Applied Probability*
  Spencer, J., Sudan, M., Xu, K.
  2014; 24 (5): 2091-2142
- **On the Power of (Even a Little) Resource Pooling** *Stochastic Systems*
  Tsitsiklis, J. N., Xu, K.
  2012; 2 (1): 1-66
- **Self-synchronizing properties of CSMA wireless multi-hop networks** *ACM Sigmetrics*
  Xu, K., Dousse, O., Thiran, P.
  2010
- **On the capacity of information processing systems** *29th Annual Conference on Learning Theory (COLT)*
  Massoulié, L., Xu, K.
  2016: 1292–97