

JIAMING XU

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The Fuqua School of Business ◊ Duke University
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RESEARCH INTERESTS

High-dimensional statistics, network science, privacy and security, optimization, information theory

EDUCATION

- Ph.D. in Electrical and Computer Engineering Dec. 2014
University of Illinois at Urbana-Champaign
Advisor: Prof. Bruce Hajek
Dissertation: “Statistical inference in networks: Fundamental limits and efficient algorithms”
- M.S. in Electrical and Computer Engineering May 2011
The University of Texas at Austin
Advisor: Prof. Jeffrey Andrews
- B.E. in Electrical Engineering July 2009
Tsinghua University

WORK EXPERIENCE

- The Fuqua School of Business, Duke University
Assistant Professor July 2018 – Present
- Electrical and Computer Engineering (Secondary), Duke University
Assistant Professor Jan. 2019 – Present
- Krannert School of Management, Purdue University
Assistant Professor Aug. 2016 – June 2018
- Simons Institute for the Theory of Computing, UC Berkeley
Research Fellow, under program “Counting Complexity & Phase Transitions” Jan. 2016 – May 2016
- Statistics Department, The Wharton School, University of Pennsylvania
Post-Doctoral Fellow, with Prof. Elchanan Mossel Jan. 2015 – Dec. 2015
- Technicolor Research Laboratory, Paris, France
Research Intern, with Dr. Laurent Massoulié and Dr. Marc Lelarge June 2012 – Sept. 2012

AWARDS AND HONORS

- Excellence in Teaching Award, Master of Quantitative Management 2021
- Markov Lecture Discussant, Applied Probability Society 2019
- Distinguished Instructor, Krannert School of Management, Purdue University 2017
- Simons-Berkeley Research Fellowship 2016
- The Wharton Dean’s Post-Doctoral Fellowship 2015
- Outstanding Graduate Student Award, College of Engineering, UIUC 2014

GRANTS

“CIF: Medium: Collaborative Research: Learning in Networks: Performance Limits and Algorithms,”
PI, NSF CCF-1856424 (Total funding \$1.2M; my share \$435,369), July 2019 - June 2023

“BIGDATA: F: Collaborative Research: Mining for Patterns in Graphs and High-Dimensional Data:
Achieving the Limits,” PI, NSF IIS-1932630 (Total funding \$1.06M; my share \$345,168), Oct. 2018 -
Sept. 2021

“CRII: CIF: Learning Hidden Structures in Networks: Fundamental Limits and Efficient Algorithms,”
PI, NSF CCF-1850743 (Total funding and my share \$174,351), Aug. 2018 - July 2020

TEACHING EXPERIENCE

Instructor, Statistical Inference on Graphs (Ph.D.), Duke University	Spring 2020
Instructor, Decision Analytics & Modeling (Master), Duke University	Spring 2019, 2020, 2021
Instructor, Advanced Modeling & Simulation (Undergraduate), Purdue University	Fall 2017
Instructor, Management Science (Undergraduate), Purdue University	Spring, Fall 2017
Instructor, Topics in High-dimensional Data Analysis (Ph.D.), Purdue University	Fall 2016
Instructor, Probability with Engineering Applications (Undergraduate), UIUC	Summer 2014

PH.D. STUDENTS

Sophie Yu, the Fuqua School of Business, Duke	2018 – present
Hanjing Zhu, the Fuqua School of Business, Duke	2018 – present
Zhiyi Tian (Joint with Jen Tang), Krannert School of Management, Purdue	2016 – present
Liren Yu (Joint with Xiaojun Li), ECE, Purdue	2018 – present

POST-DOCTORAL RESEARCH FELLOWS

Dana Yang	2019 – present
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BOOK CHAPTERS

1. Y. Wu and J. Xu,
“Statistical problems with planted structures: Information-theoretical and computational limits,”
Information-theoretic methods in data science, Cambridge University Press, Feb. 2020

PREPRINTS UNDER REVIEW

1. J. Ding, Y. Wu, J. Xu, and D. Yang,
“The planted matching problem: Sharp threshold and infinite-order phase transition,”
arXiv:2103.09383, March 2021. Submitted to *Probability Theory and Related Fields*
2. Y. Wu, J. Xu, S. H. Yu,
“Settling the Sharp Reconstruction Thresholds of Random Graph Matching,”
arXiv:2102.00082, Feb. 2021.
3. Y. Wu, J. Xu, and S. H. Yu,
“Testing correlation of unlabelled random graphs,”
arXiv:2008.10097, August 2020

4. Z. Fan, C. Mao, Y. Wu, and J. Xu,
“Spectral graph matching and regularized quadratic Relaxations I: The Gaussian model,”
arXiv:1907.08880, July 2019. Submitted to *Foundations of Computational Mathematics*
5. Z. Fan, C. Mao, Y. Wu, and J. Xu,
“Spectral graph matching and regularized quadratic relaxations II: Erdős-Rényi graphs and universality,”
arXiv:1907.08883, July 2019. Submitted to *Foundations of Computational Mathematics*
6. G. Reeves, J. Xu, and I. Zadik,
“The all-or-nothing phenomenon in sparse linear regression,”
arXiv:1903.05046, Mar. 2019. Under 2nd round review, *Mathematical Statistics and Learning*
7. Z. Tian, J. Xu, and J. Tang,
“Clustering High-dimensional Noisy Categorical Data,” Under revision, Dec. 2020, *Journal of the American Statistical Association*

PEER-REVIEWED JOURNAL PUBLICATIONS

1. L. Yu, J. Xu, and X. Lin,
“The Power of D-hops in Matching Power-Law Graphs,”
To appear in *Proceedings of the ACM on Measurement and Analysis of Computing Systems*, Apr. 2021, arXiv:2102.12975
2. J. Ding, Y. Wu, J. Xu, and D. Yang,
“Consistent recovery threshold of hidden nearest neighbor graphs,”
arXiv:1911.08004, Nov. 2019. Accepted to *IEEE Trans. Inf. Theory*
3. M. Moharrami, C. Moore, and J. Xu,
“The planted matching problem: Phase transitions and exact results,”
arXiv:1912.08880, To appear in *Annals of Applied Probability*
4. J. Ding, Z. Ma, Y. Wu, and J. Xu,
“Efficient random graph matching via degree profiles,”
To appear in *Probability Theory and Related Fields*, Sept. 2020
5. W. Hsu, J. Xu, X. Lin, and M. Bell,
“Integrate learning and control in queueing systems with uncertain payoffs,”
To appear in *Operations Research*, Aug. 2020
6. J. Xu and Y. Zhong,
“Improved queue-size scaling for input-queued switches via graph factorization,”
Journal of Applied Probability, vol. 52, no. 3, pp. 798-824, Sept. 2020
7. E. Mossel and J. Xu,
“Seeded graph matching via large neighborhood statistics,”
Random Structures & Algorithms, vol. 57, no. 3, pp. 570-611, June 2020
8. X. Li, Y. Chen, and J. Xu,
“Convex relaxation methods for community detection,”
Statistical Science, vol. 36, no. 1, pp. 2-15, 2021
9. V. Bagaria, J. Ding, D. Tse, Y. Wu, and J. Xu,
“Hidden Hamiltonian cycle recovery via linear programming,”
Operations Research, vol. 68, no. 1, Jan. 2020
10. L. Su and J. Xu,
“Securing distributed machine learning in high Dimensions,”
Proc. of the ACM on Measurement and Analysis of Computing Systems, vol. 3, no. 1, Mar. 2019

11. J. Banks, C. Moore, N. Verzelen, R. Vershynin, and J. Xu,
“Information-theoretic bounds and phase transitions in clustering, sparse PCA, and submatrix localization,”
IEEE Trans. Inf. Theory, vol. 67, no. 7, pp. 4872–4894, July 2018
12. B. Hajek, Y. Wu, and J. Xu,
“Recovering a hidden community beyond the Kesten-Stigum threshold in $O(|E| \log^* |V|)$ time,”
Journal of Applied Probability, vol. 55, no. 2, pp. 325–352, June 2018
13. S. Negahban, S. Oh, K. Thekumparampil, and J. Xu,
“Learning from comparisons and choices,”
Journal of Machine Learning Research, 2018
14. Y. Chen, X. Li, and J. Xu,
“Convexified modularity maximization for degree-corrected stochastic block models,”
The Annals of Statistics, vol. 46, no. 4, pp. 1573–1602, June 2018
15. B. Hajek, Y. Wu, and J. Xu,
“Submatrix localization via message passing,”
The Journal of Machine Learning Research, vol. 18, no. 186, pp. 1-52, Apr. 2018
16. Y. Chen, L. Su, and J. Xu,
“Distributed statistical machine learning in adversarial settings: Byzantine gradient descent,”
Proc. of the ACM on Measurement and Analysis of Computing Systems, vol. 1, no. 2, Dec. 2017
17. B. Hajek, Y. Wu, and J. Xu,
“Information limits for recovering a hidden community,”
IEEE Trans. Inf. Theory, vol. 63, pp. 4729–4745, Aug. 2017
18. B. Hajek, Y. Wu, and J. Xu,
“Achieving exact cluster recovery threshold via semidefinite programming: Extensions,”
IEEE Trans. Inf. Theory, vol. 62, pp. 5918–5937, Oct. 2016
19. B. Hajek, Y. Wu, and J. Xu,
“Achieving exact cluster recovery threshold via semidefinite programming,”
IEEE Trans. Inf. Theory, vol. 62, pp. 2788–2797, May 2016
20. M. Lelarge, L. Massoulié, and J. Xu,
“Reconstruction in the labeled stochastic block model,”
IEEE Transactions on Network Science and Engineering, vol. 2, pp. 152–163, Oct. 2015
21. Y. Chen and J. Xu,
“Statistical-computational tradeoffs in planted problems and submatrix localization with a growing number of clusters and submatrices,”
The Journal of Machine Learning Research, vol. 17, no. 1, pp. 882–938, 2016
22. J. Xu and B. Hajek,
“The supermarket game,”
Stochastic Systems, no. 3, pp. 405–441, 2013
23. J. Xu, J. Andrews, and S. Jafar,
“MISO broadcast channels with delayed finite-rate feedback: Predict or observe?,”
IEEE Trans. Wireless Commun., vol. 11, pp. 1456–1467, Apr. 2012
24. J. Xu, J. Zhang, and J. Andrews,
“On the accuracy of the Wyner model in cellular networks,”
IEEE Trans. Wireless Commun., vol. 10, pp. 3098–3109, Sept. 2011

1. L. Yu, J. Xu, X. Lin,
“The Power of D-hops in Matching Power-Law Graphs,”
in *Proceedings of ACM SIGMETRICS*, 2021
2. Y. Wu, J. Xu, S. H. Yu,
“Settling the Sharp Reconstruction Thresholds of Random Graph Matching,”
in *Proceedings of International Symposium on Information Theory (ISIT)*, 2021
3. J. Xu, K. Xu, D. Yang,
“Learner-Private Online Convex Optimization,”
In *Proceedings of International Conference on Machine Learning (ICML)*, July 2021, arXiv:2102.11976
4. J. Xu, K. Xu, and D. Yang,
“Optimal query complexity for private sequential learning,”
2021 International Conference on Artificial Intelligence and Statistics (AISTATS), Apr. 2021,
arXiv:1909.09836,
5. J. Xu and H. Zhu,
“One-pass Stochastic Gradient Descent in overparametrized two-layer neural networks,”
2021 International Conference on Artificial Intelligence and Statistics (AISTATS), Apr. 2021,
arXiv:2105.00262
6. Z. Fan, C. Mao, Y. Wu, and J. Xu,
“Spectral Graph Matching and Regularized Quadratic Relaxations: Algorithm and Theory,”
in *Proceedings of International Conference on Machine Learning (ICML)*, July 2020.
7. J. Ding, Y. Wu, J. Xu, and D. Yang,
“Consistent recovery threshold of hidden nearest neighbor graphs,” in *Proceedings of Conference on Learning Theory (COLT)*, July 2020.
8. G. Reeves, J. Xu, and I. Zadik,
“The all-or-nothing phenomenon in sparse linear regression,”
in *Proceedings of Conference on Learning Theory (COLT)*, June 2019
9. J. Xu and Y. Zhong,
“Improved queue-size scaling for input-queued switches via graph factorization,”
in *Proceedings of ACM SIGMETRICS*, June 2019
10. L. Su and J. Xu,
“Securing distributed gradient descent in high dimensional statistical learning,”
in *Proceedings of ACM SIGMETRICS*, June 2019
11. E. Mossel and J. Xu,
“Seeded graph matching via large neighborhood statistics,”
in *Proceedings of ACM-SIAM Symposium on Discrete Algorithms (SODA)*, Jan. 2019
12. J. Xu,
“Rates of convergence of spectral methods for graphon estimation,”
in *Proceedings of International Conference on Machine Learning (ICML)*, July 2018
13. Y. Chen, L. Su, and J. Xu,
“Distributed statistical machine learning in adversarial settings: Byzantine gradient descent,”
in *Proceedings of ACM SIGMETRICS*, June 2018
14. J. Banks, C. Moore, N. Verzelen, R. Vershynin, and J. Xu,
“Information-theoretic bounds and phase transitions in clustering, sparse PCA, and submatrix

- localization,”
in *Proceedings of IEEE International Symposium on Information Theory (ISIT)*, June 2017
15. F. Krzakala, J. Xu, and L. Zdeborová,
“Mutual information in rank-one matrix estimation,”
in *Proceedings of IEEE Information Theory Workshop (ITW)*, Sept. 2016
 16. B. Hajek, Y. Wu, and J. Xu,
“Information limits for recovering a hidden community,”
in *Proceedings of IEEE International Symposium on Information Theory (ISIT)*, July 2016
 17. B. Hajek, Y. Wu, and J. Xu,
“Semidefinite programs for exact recovery of a hidden community,”
in *Proceedings of Conference on Learning Theory (COLT)*, June 2016
 18. E. Mossel and J. Xu,
“Density evolution in the degree-correlated stochastic block model,”
in *Proceedings of Conference on Learning Theory (COLT)*, June 2016
 19. E. Mossel and J. Xu,
“Local algorithms for block models with side information,”
in *Proceedings of Innovations in Theoretical Computer Science (ITCS)*, Jan. 2016
 20. S. Oh, K. K. Thekumparampil, and J. Xu,
“Collaboratively learning preferences from ordinal data,”
in *Proceedings of Neural Information Processing Systems (NeurIPS)*, Dec. 2015
 21. B. Hajek, Y. Wu, and J. Xu,
“Achieving exact cluster recovery threshold via semidefinite programming,”
in *Proceedings of IEEE International Symposium on Information Theory (ISIT)*, June 2015
 22. B. Hajek, Y. Wu, and J. Xu,
“Computational lower bounds for community detection on random graphs,”
in *Proceedings of Conference on Learning Theory (COLT)*, June 2015
 23. R. Wu, J. Xu, R. Srikant, L. Massoulié, M. Lelarge, and B. Hajek,
“Clustering and inference from pairwise comparisons,”
in *Proceedings of ACM SIGMETRICS*, short paper, June 2015
 24. B. Hajek, S. Oh, and J. Xu,
“Minimax-optimal inference from partial rankings,”
in *Proceedings of Neural Information Processing Systems (NeurIPS)*, Dec. 2014
 25. Y. Chen and J. Xu,
“Statistical-computational phase transitions in planted models: the high-dimensional setting,”
in *Proceedings of International Conference on Machine Learning (ICML)*, June 2014
 26. J. Xu, R. Wu, K. Zhu, B. Hajek, R. Srikant, and L. Ying,
“Jointly clustering rows and columns of binary matrices: Algorithms and trade-offs,”
in *Proceedings of ACM SIGMETRICS*, June 2014
 27. J. Xu, L. Massoulié, and M. Lelarge,
“Edge label inference in generalized stochastic block models: from spectral theory to impossibility results,”
in *Proceedings of Conference on Learning Theory (COLT)*, June 2014
 28. M. Lelarge, L. Massoulié, and J. Xu,
“Reconstruction in the labeled stochastic block model,”
in *Proceedings of IEEE Information Theory Workshop (ITW)*, Sept. 2013

29. J. Xu and B. Hajek,
“The supermarket game,”
in *Proceedings of IEEE International Symposium on Information Theory (ISIT)*, July 2012
30. J. Xu, J. Andrews, and S. Jafar,
“The net benefit of delayed finite-rate feedback in the MISO broadcast channel,”
in *Proceedings of Annual Allerton Conference on Communication, Control, and Computing (Allerton)*,
Sept. 2011
31. J. Xu, J. Zhang, and J. Andrews,
“On the accuracy of the Wyner model in downlink cellular networks,”
in *Proceedings of IEEE International Conference on Communications (ICC)*, June 2011
32. J. Xu, J. Zhang, and J. Andrews,
“When does the Wyner model accurately describe an uplink cellular network?,”
in *Proceedings of IEEE Global Telecommunications Conference (GLOBECOM)*, Dec. 2010

INVITED PAPERS

1. B. Hajek, Y. Wu, and J. Xu,
“Achieving exact cluster recovery threshold via semidefinite programming under the stochastic block model,”
in *Proceedings of Asilomar Conference on Signals, Systems, and Computers*, Nov. 2015
2. B. Hajek, Y. Wu, and J. Xu,
“Exact recovery threshold in the binary censored block model,”
in *Proceedings of IEEE Information Theory Workshop (ITW)*, Oct. 2015

SELECTED SEMINARS AND TALKS

1. “Testing correlations of unlabelled random graphs”
 - Computational and Methodological Statistics Conference, Dec. 2020
 - Simons Institute Workshop: Computational Phase Transitions, Sept. 2020
2. “Efficient Graph Matching: Algorithms and Theory”
 - ECE, Boston University, Mar. 2020.
 - EE, Yale University, Feb. 2020.
 - Chicago Booth business school, Feb. 2020.
3. “Spectral graph matching and regularized quadratic relaxations”
 - Information Systems Laboratory Colloquium, Stanford, Nov. 2019
 - Applied Probability Society Markov Lecture Discussant, Seattle, Oct. 2019
 - Berkeley Laboratory for Information and System Sciences Seminar, UC Berkeley, Oct. 2019
 - Probability Seminar, Department of Mathematics, Duke, Oct. 2019
 - Workshop on Graphical models, Exchangeable models and Graphons, MIT, Aug. 2019
4. “Efficient random graph matching via degree profiles”
 - Applied Probability Society Meeting, Brisbane, Austria, July 2019
5. “Improved queue-size scaling for input-queued switches via graph factorization”
 - MostlyOM Workshop, The Chinese University of Hong Kong, Shenzhen, June 2019

6. “Phase transitions in high-dimensional statistics”
 - Department Colloquium, Statistics Department, Wharton, UPenn, Apr. 2019
7. “Efficient graph matching via neighborhood statistics”
 - International workshop on Physics, Inference and Learning, Chinese Academy of Sciences, Oct. 2018
 - School of Mathematics, Peking University, Oct. 2018
 - Allerton Conference on Communication, Control, and Computing, Monticello, Oct. 2018
8. “Achieving exact recovery threshold of traveling salesman problems via linear programming: Applications to DNA sequencing”
 - Information and Decision Sciences Seminar, Business School, University of Illinois at Chicago, Mar. 2019
 - Statistics Seminar, ISyE, GeorgiaTech, Mar. 2019
 - IMS Annual Meeting on Probability and Statistics, July 2018
 - 2018 ShanghaiTech Workshop on Information, Learning and Decision, June 2018
 - Workshop on Limits to Inference in Networks and Noisy Data, Santa Fe Institute, Apr. 2018
 - Booth School of Business, The University of Chicago, Feb. 2018
 - Workshop in Operations Research and Data Science, Duke University, Dec. 2017
 - School of Operations Research and Information Engineering, Cornell University, Nov. 2017
 - Allerton Conference on Communication, Control, and Computing, Monticello, Oct. 2017
9. “DNA seriation under planted Hamiltonian path model”
 - Joint Statistical Meeting, Baltimore, Aug. 2017
 - Simons Institute at UC Berkeley, June 2017
 - Industrial Engineering Department, Purdue University, Mar. 2017
 - Workshop on Statistical Physics, Learning, Inference and Networks, Les Houches, France, Feb. 2017
 - Information Theory and Applications Workshop (ITA), Feb. 2017
10. “Information-theoretic bounds and phase transitions in clustering, sparse PCA, and submatrix localization”
 - Statistics Department, Yale University, Oct. 2016
 - Allerton Conference on Communication, Control, and Computing, Monticello, Sept. 2016
11. “Semidefinite programming relaxations for recovering hidden communities”
 - Applied Probability Society Meeting, July 2017
 - Fudan International Conference on Data Science, Dec. 2016
 - INFORMS Annual Meeting, Nashville, Nov. 2016
 - Industrial Engineering Department, Purdue University, Sept. 2016
 - Statistics Department, Purdue University, Sept. 2016

- Sante Fe Institute, June 2016
- 12. “Finding a hidden community in networks: Where is the hard regime?”
 - Purdue Krannert School of Management, Feb. 2017
 - Simons Institute at UC Berkeley, Apr. 2016
 - Stanford Graduate School of Business, Apr. 2016
 - School of Electrical Engineering, Korea Advanced Institute of Science and Technology, Oct. 2015
- 13. “Community detection in networks: Algorithms, complexity, and information limits”
 - Electrical and Computer Engineering, University of Michigan, Feb. 2016
 - Electrical Engineering, Princeton University, Feb. 2016
 - Krannert School of Management, Purdue University, Jan. 2016
 - Imperial College London Business School, Dec. 2015
 - HajekFest: A Workshop on Networks, Games, and Algorithms, UIUC, Oct. 2015
- 14. “Community detection in networks: Fundamental limits and efficient algorithms”
 - IDeAS seminar, PACM, Princeton University, Apr. 2015
 - Graduation-Day Talks, Information Theory and Applications Workshop (ITA), Feb. 2015
 - Electrical Engineering Seminar Series, Harvard University, Jan. 2015
 - Research Group Seminar, Department of Statistics, University of California, Berkeley, Oct. 2014
 - Information Theory Forum, Department of Electrical Engineering, Stanford University, Sept. 2014
 - Department Colloquium, Wharton Statistics Department, University of Pennsylvania, Aug. 2014
 - Artificial Intelligence & Information Systems Seminar, Computer Science, UIUC, Mar. 2014
 - Communications Seminar, Department of Electrical and Computer Engineering, UIUC, Nov. 2013
- 15. “The supermarket game,” Technicolor Paris Research Lab, June 2012

PROFESSIONAL SERVICE

- Thesis Committee member:
 - Sophie H. Yu, The Fuqua School of Business, Duke University
 - Fei Fang, The Fuqua School of Business, Duke University
 - Chen-An Lin, The Fuqua School of Business, Duke University
 - Xiang Wang, Computer Science, Duke University
 - Ying Chen, Electrical and Computer Engineering, Duke University
 - Liren Yu, Electrical and Computer Engineering, Purdue University
 - Zhiyi Tian, Krannert School of Management, Purdue University

- Hyun-Ju Oh, Krannert School of Management, Purdue University
- University services:
 - Decision Science Area Seminar organizer, Duke University, 2020
 - First-year Paper Committee, Decision Sciences Area, Duke University, 2019-2020
 - PhD Program Faculty Oversight Committee member, Purdue University, 2018
- Conferences and workshops:
 - Organizer, Workshop “Learning in Networks: Performance Limits and Algorithms”, Oaxaca, Mexico, Nov. 2020
 - Organizer, Workshop “Operations Research and Data Science”, Duke University, Dec. 2019
 - Organizing Committee and Program Committee Member, the 2020 ACM International Conference on Measurement and Modeling of Computer Systems (SIGMETRICS)
 - Program Committee Member, the 2019 ACM International Conference on Measurement and Modeling of Computer Systems (SIGMETRICS)
 - Organizer, Conference on Data Science for Business and Economics, Purdue University, May 2018
 - Program Committee Member, the 2018 ACM International Conference on Measurement and Modeling of Computer Systems (SIGMETRICS)
 - Program Committee Member, the 2017 International Conference on Artificial Intelligence and Statistics (AISTATS)
 - “Random Graphs and Learning in Applied Probability” invited session, 2017 INFORMS Annual Meeting Houston
 - “Optimization in Applied Probability” invited session, 2016 INFORMS Annual Meeting Nashville
- Reviewer:
 - Journals: Operations Research, Management Science, Stochastic Systems, The Annals of Statistics, IEEE Transactions on Information Theory, Probability Theory and Related Fields, Journal of Machine Learning Research, Information and Inference, IEEE Transactions on Network Science and Engineering, IEEE Transactions on Wireless Communications, Queueing Systems, IEEE J. Sel. Areas Commun., Journal of Selected Topics in Signal Processing
 - Conferences: IEEE Symposium on Foundations of Computer Science (FOCS), ACM-SIAM Symposium on Discrete Algorithms (SODA), ACM Symposium on Theory of Computing (STOC), Conference on Learning Theory (COLT), IEEE International Symposium on Information Theory (ISIT), Neural Information Processing Systems annual meeting (NeurIPS), International Conference on Artificial Intelligence and Statistics (AISTATS), ACM International Conference on Measurement and Modeling of Computer Systems (SIGMETRICS)