ABISHEK SANKARARAMAN

INTERESTS   Online Learning, Clustering, Random Graphs, Stochastic Networks,

EDUCATION

The University of Texas at Austin
Ph.D. in Electrical and Computer Engineering   Sep. 2013 - Sep 2019
- Thesis: Spatial Stochastic Models for Network Analysis
- Advisor: François Baccelli

Indian Institute of Technology, Madras
B.Tech and M.Tech in Electrical Engineering, Minor in Mathematics
GPA: 9.23/10   Aug 2008 - May 2013

EMPLOYMENT

University of California, Berkeley   Berkeley,CA
Postdoctoral Researcher, Advisor: Venkat Anantharam   Sep 2019 - Present

Simons Center for Network Mathematics   Austin, TX
Graduate Research Assistant. Advisor: François Baccelli   Jan 2014-Present

Huawei Research Labs   Santa Clara, CA
Data Science Intern. Manager: Hui Zang   May - Aug, 2015

RESEARCH

Machine Learning

The Gossiping Insert-Eliminate Algorithm for Multi Agent Multi Armed Bandits
Ronshee Chawla*, A. Sankararaman*, Ayalvadi Ganesh and Sanjay Shakkottai
AISTATS 2020 * Equal Contribution

Social Learning in Multi-Agent Multi-Armed Bandit Problem
A. Sankararaman, Ayalvadi Ganesh and Sanjay Shakkottai
ACM SIGMETRICS 2020

ComHapDet: A Spatial Community Detection Algorithm for Haplotype Assembly
A. Sankararaman, Haris Vikalo and François Baccelli
BMC Genomics, 2020 (To Appear). Extended Abstract in ACM CNB-MAC 2019.

Community Detection on Euclidean Random Graphs
A.Sankararaman, Emmanuel Abbe and François Baccelli
ACM-SIAM Symposium on Discrete Algorithms (SODA), 2018.
Full Version in **Information and Inference : A journal of the IMA, 2020.**

Network Modeling and Algorithms

Stability and Scalability of Blockchain Systems
Aditya Gopalan, A. Sankararaman, Anwar Walid and Sriram Vishwanath
ACM SIGMETRICS 2020

Interference Queuing Networks on Grids
A. Sankararaman, François Baccelli and Sergey Foss
Annals of Applied Probability, October 2019, Vol. 29, No. 5, 2929-2987.

Spatial Birth-Death Wireless Networks
A.Sankararaman and François Baccelli
IEEE Transactions on Information Theory, June 2017, 63 (6), 3964-3982.

Performance-Oriented Association in Large Cellular Networks with Technology Diversity
A.Sankararaman, Jeong woo Cho and François Baccelli
International Teletraffic Congress (ITC), 2016.

CSMA k-SIC: A class of distributed MAC protocols and their performance evaluation
A.Sankararaman and François Baccelli
IEEE Conference on Computer Communications (INFOCOM), 2015.

[Congestion Control of Smart Distribution Grids using State Estimation](#)
Abishek. S and Balakrishnan Narayanaswamy
IEEE COMSNETS, E6 Workshop, 2013.

TEACHING AND MENTORSHIP	Teaching Assistant, *Advanced Probability - Inference and Learning*	Spring 2018
	Teaching Assistant, *Probability and Stochastic Processes (Graduate)*	Fall 2018
	Duties include holding office hours, setting homework and exam problems.	

Undergraduate Student Mentor - *Mixing Times for Random Walks on Groups*   Spring 2018
Research supervisor for an undergraduate student project in the Mathematics Department

LEADERSHIP

- WNCG Student Leadership Award   2018.

TALKS

- *Interference Queuing Networks on Grids*
  Talk at INFORMS Applied Probability Society, Brisbane, Australia.   Jul 2019
  Talk at UNC-Chapel Hill Probability Seminar, Chapel Hill, NC.   Feb 2019
  Talk at Austin-TAMU Probability Seminar, Austin, TX.   May 2018
  Talk at Heriot-Watt University, Edinburgh UK   Feb 2018

- *Community Detection on Euclidean Random Graphs*
  Talk at AMS Special Session on Stochastic Spatial Models, at the 2020 Joint Mathematics Meeting, Denver CO   Jan 2020
  Talk at MIT Research Laboratory of Electronics, Cambridge MA   Dec 2018
  Talk at University of Massachusetts, Amherst, MA   Dec 2018
  Talk at Indian Institute of Technology Madras, Chennai   Jan 2018
  Talk at ACM-SIAM SODA Conference, New Orleans, LA   Jan 2018
  Talk at The University of Texas at Austin   May 2017

- *Spatial Birth Death Process on the Continuum*
  Talk at Indian Institute of Technology Madras, Chennai   Jan 2017
  Talk at Princeton University   Nov 2016
  Talk at Allerton Conference on Communication Control and Computing   Oct 2016
  Talk at INRIA - Ecole Normale Supérieure, Paris   Sep 2016

- *Technology Diversity - A Framework for Base Station Association in Large Cellular Networks*
  Talk at 28th, International Teletraffic Congress (ITC-28), Würzburg, Germany   Sep 2016

- *CSMA k-SIC: A Class of MAC Protocols*
  Talk at IEEE INFOCOM, Hong Kong   May 2015

PROFESSIONAL SERVICES

- Reviewer for Journal of Applied Probability (JAP),   2019-2020
- Organizer for Random Structures Seminar at UT Austin Math dept.   2017-2019
- Reviewer for IEEE ISIT (International Symposium on Information Theory)   2019
- Reviewer for Queueing Systems Journal   2019
- Reviewer for ACM-SIAM SODA (Symposium on Discrete Algorithms)   2019
- Reviewer for IEEE FOCS (Foundations of Computer Science)   2018
- Reviewer for SpaSWIN (Spatial Stochastic Models for Wireless Networks)   2018
- Reviewer for Performance Evaluation   2017
- Reviewer for IEEE Transactions on Information Theory   2016-2019
- Reviewer for IEEE Transactions on Wireless Communications   2015-2019