ABISHEK SANKARARAMAN

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Information Unit A

EXPERIENCE

Austin, Texas, 78703 Email: abishek@utexas.edu

Machine Learning, Multi-Agent Systems, Random Graphs and Social Networks, Randomized Algo-Interests

rithms, Distributed Algorithms

EDUCATION The University of Texas at Austin

> Ph.D. in Electrical and Computer Engineering Jan. 2013 - Present

• Advisor: François Baccelli

Indian Institute of Technology, Madras

B. Tech in Electrical Engineering

M. Tech in Communication Systems and Signal Processing

Minor in Mathematics

• Graduated ranked 1^{st} in the Department.

Work Wireless Networking and Communications Group (WNCG), UT Austin Austin, TX

Graduate Research Assistant. Advisor: François Baccelli

Jan 2014-Present

2008 - 2013

Simons Center for Network Mathematics Austin, TX

Graduate Research Assistant. Advisor: François Baccelli Jan 2014-Present

Santa Clara, CA Huawei Research Labs

Data Science Intern. Manager: Hui Zang May - Aug, 2015

Publications 1. Social Learning in Multi-Agent Multi-Armed Bandit Problem

with S. Shakkottai and A. Ganesh

Under Submission. Paper available on request.

2. Interference Queuing Networks on Grids

A. Sankararaman, François Baccelli and Sergey Foss

Annals of Applied Probability (To Appear).

3. Community Detection on Euclidean Random Graphs

A.Sankararaman, Emmanuel Abbe and François Baccelli

In ACM-SIAM Symposium on Discrete Algorithms (SODA), 2018.

Extended Abstract in 55th Allerton Conference, 2017.

Full Version Under Review at IMA Information and Inference.

4. Spatial Birth-Death Wireless Networks

A.Sankararaman and François Baccelli

In IEEE Transactions on Information Theory, 63(6):3964–3982, 2017.

Preliminary Version in 54th Allerton Conference, October 2016.

5. Performance-Oriented Association in Large Cellular Networks with Technology Diversity A.Sankararaman, Jeong woo Cho and François Baccelli

In 2016 28th International Teletraffic Congress (ITC 28), Vol. 1, pp 94-102. Sep 2016, IEEE.

6. CSMA k-SIC: A class of distributed MAC protocols and their performance evaluation A.Sankararaman and François Baccelli

In 2015 IEEE Conference on Computer Communications (INFOCOM), pages 2002-2010, April 2015.

WORKING PAPERS 7. Haplotype Phasing Through Euclidean Community Detection

with H. Vikalo and F. Baccelli

8. Distributed Bandit Algorithms in a Dynamic Changing Environment

with R. Chawla, S. Shakkottai and A. Ganesh

TEACHING AND MENTORSHIP Teaching Assistant, $Advanced\ Probability$ - $Inference\ and\ Learning$ The $University\ of\ Texas\ at\ Austin$

Spring 2018

Duties include holding office hours, setting homework and exam problems.

Undergraduate Student Mentor - Mixing Times for Random Walks on Groups

Primary mentor for an undergraduate student project in the Mathematics Department Spring 2018

My main duty is to propose a research topic to the student and then aid in executing it. We decided to study mixing times for random walks on groups, in particular the cutoff-phenomenon. At the end of the project, the student is expected to give a public seminar on the project.

Talks and Presentations

• Interference Queuing Networks on Grids	
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 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
90	Jan 2018
Talk at ACM-SIAM SODA Conference, New Orleans, LA	
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 Cellul	ar Natauarke
Talk at 28th, International Teletraffic Congress (ITC-28), Würzburg, Germany	Sep 2016
Talk at 25th, International Teletranic Congress (110-25), Warzburg, Germany	Scp 2010
• CSMA k-SIC: A Class of MAC Protocols	
Talk at IEEE INFOCOM, Hong Kong	$\mathrm{May}\ 2015$
• 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
• Reviewer for IEEE Transactions on Wireless Communications	2015 - 2019

References

Professional Services

On Request