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RESEARCH INTEREST

Probability Theory, Stochastic Analysis and applications, Stochastic Networks, Queueing Theory.

EDUCATION

Brown University, providence, RI, USA

- PhD Candidate, Applied Mathematics (expected) May 2016
- Master of Science, Applied Mathematics May 2011

Carnegie-Mellon University, Pittsburgh, PA, USA

- Master of Science, Electrical Engineering May 2010

Sharif University of Technology, Tehran, Iran

- Bachelor of Science, Electrical Engineering May 2008
- Bachelor of Science, Mathematics May 2008

PUBLICATION

Preprints

- R. Aghajani and K. Ramanan. *On the stationary distribution of an SPDE associated with a many-server queue.* Preprint, 2015.
- R. Aghajani and K. Ramanan. *The limit of stationary distributions of many-server queues in the Halfin-Whitt regime.* Preprint, 2015.
- R. Aghajani and K.Ramanan. *Hydrodynamic limits of a randomized load balancing network.* Preprint, 2015.
- R. Aghajani and K.Ramanan. *PDE Method for randomized load balancing.* Preprint, 2015.

Published

- R. Aghajani, L. Parolini, B. Sinopoli, *Dynamic Power Allocation in Server Farms: a Real Time Optimization Approach*, 49th IEEE Conference on Decision and Control. Atlanta, GA. Dec. 2010.
- A. Khonsari, R. Aghajani, A. Tavakkol, M.S. Talebi, *Mathematical Analysis of Buffer Sizing for Network-on-Chips under Multimedia Traffic.* ICCD 2008: 150-155
- A. Dadlani, A. Khonsari, R. Aghajani, A. Rajabi. *QoS Behavior of Optical Burst Switching under Multimedia Traffic: an Analytical Approach.* IPCCC 2008: 335-342

LONGTERM VISITS/WORKSHOPS

Project Rap, INRIA Paris-Rocquencourt, France, Summer 2014.

- Visitor Researcher of Networks, Algorithms and Probability (RAP) group. Research on scaling analysis of transient stochastic networks, in collaboration with Philippe Robert.

Computational Challenges in Probability, ICERM, Providence, RI, Fall 2012

- Participant of the semester-long program including four workshops (Bayesian Nonparametrics, Uncertainty Quantification, Monte Carlo Methods in the Physical & Biological Sciences, Performance Analysis of Monte Carlo Methods) and three tutorials.

CONFERENCES AND PRESENTATIONS

Presentations and Posters:

- INFORMS Applied Probability Society Conference, *A Diffusion Approximation for Stationary Distribution of Many-Server Queueing System In Halfin-Whitt Regime*, Istanbul, Turkey, 2015.
- Seminar on Stochastic Processes, poster: *Hydrodynamics limits for Randomized Load Balancing*, Newark, DE, 2015 (Awarded funding from conference.)
- INFORMS annual meeting, presentation, oral presentation: *Hydrodynamics limits for Randomized Load Balancing*, San Francisco, CA, 2014.
- Seminar on Stochastic Processes, poster: *Asymptotic Coupling of an SPDE, with Applications to Many-Server Queues*, San Diego, CA, 2014 (Awarded funding from conference.)
- INFORMS annual meeting, presentation, oral presentation: *Diffusion Approximation for Steady State Characterization of G/G/N Queueing Systems in Halfin-Whitt Regime*, Minneapolis, MN, 2013.
- ICERM workshop on Computational Challenges in Probability, oral presentation: *Asymptotic Coupling with Application in Queuing Systems,* Providence, RI, 2012.
- NSF CMMI grantee conference, Poster: *Analysis of Large-Scale Stochastic Systems,* Boston, MA, 2012.
- Division of Applied Mathematics Math Slam, oral presentation: *Asymptotic Analysis of Large Scale Systems,* Brown University, Providence, RI, 2013.
- Division of Applied Mathematics Graduate Seminar, oral presentation: *ODE and PDE method in Stochastic Networks,* Brown University, Providence, RI, 2015.

Conferences attended:

- Joint Mathematical Meetings, San Antonio, TX, 2015 (Awarded funding from conference.)
- Stochastic Networks Conference, Massachusetts Institute of Technology, Cambridge, MA 2012.

TEACHING AND MENTORSHIP EXPERIENCES

Mentorship

- Co-mentor of Undergraduate Honors Thesis: Katrina Kardassakis, *Load Balancing in Stochastic Networks: Algorithms, Analysis, and Game Theory*, 2014.
- Co-mentor of Independent Study and ongoing Undergraduate Honors Thesis: Eric Hu, *Power of Two Choices with General Service Distribution*, 2015.

Teaching Assistantship

- Teaching assistant of Statistical Inference I, Brown University, 2012
- Teaching assistant of Probability Theory (graduate course), Brown University, 2011
- Teaching assistant of Networked Control, Carnegie-Mellon University, 2010
- Teaching assistant of Engineering Probability and Statistics, Sharif Univ. of Tech., 2007
- Teaching assistant of Probability and Applications, Sharif Univ. of Tech., 2007

HONORS AND AWARDS

- Recipient of Sigma Xi award, Brown University, 2014.
- Ranked 2nd in Mathematics Department and 5th in EE department, Sharif University of Technology, 2008.
- Ranked 58th amongst more than 400'000 Participant in Iran's nationwide university entrance exam, 2003.
- Silver medalist of Iran's National Physics Olympiad, 2002.