Sepehr Assadi

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Department of Computer Science
Rutgers University, Piscataway, NJ.

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PROFESSIONAL & Assistant Professor,

September 2019 to present

EXPERIENCE Rutgers University, Department of Computer Science

♦ Postdoctoral Researcher, January 2019 to August 2019

Princeton University, Department of Computer Science

• Supported by the Simons Collaboration on Algorithms and Geometry.

♦ Summer internship at Google Research, New York City June 2017 to August 2017

EDUCATION

- PhD in Computer and Information Science,
 University of Pennsylvania, Department of Computer and Information Science
 - Advisor: Sanjeev Khanna
 - Thesis: Combinatorial Optimization on Massive Datasets: Streaming, Distributed, and Massively Parallel Computation
 - $*\ EATCS\ Distinguished\ Dissertation\ Award$
 - * ACM-EATCS Principles of Distributed Computing Doctoral Dissertation Award
 - * Rubinoff Dissertation Award from University of Pennsylvania
- ♦ B.Sc. in Computer Engineering,

September 2008 to July 2013

Sharif University of Technology, Department of Computer Engineering

- Thesis: The Rectangle Escape Problem
- Thesis supervisor: Hamid Zarrabi-Zadeh

RESEARCH Interests My primary research interest is in **theoretical foundations of big data analysis**. This in particular includes **sublinear algorithms and lower bounds** in various models of computation for processing massive datasets such as streaming, distributed communication, massively parallel computation, and sublinear time algorithms. I am also interested in communication complexity, online algorithms, and algorithmic game theory.

Honors and Awards

- HONORS AND \diamond Google Research Scholar Program Award, 2021.
 - ⋄ National Science Foundation Faculty Early Career Development (CAREER) Award, 2020.
 - ♦ Best Paper Award at International Symposium on Distributed Computing, DISC 2020.
 - ♦ ACM-EATCS Principles of Distributed Computing **Doctoral Dissertation Award**, 2019.
 - ♦ EATCS Distinguished Dissertation Award, 2019.
 - ♦ Rubinoff **Dissertation Award**, University of Pennsylvania, 2019.
 - ♦ Best Paper Award at Symposium on Discrete Algorithms, SODA 2019.
 - ♦ Best Paper Award at Symposium on Parallelism in Algorithms and Architectures, SPAA 2017.
 - ♦ Best Student Paper Award at Symposium on Principles of Database Systems, PODS 2017.
 - ♦ Best Paper Award at Conference on Web and Internet Economics, WINE 2015.
 - ♦ Ranked 8th in the Asia Regional ACM-ICPC Contest, Tehran, Iran, 2012.
 - ♦ Gold Medal in the Scientific Olympiad for University Students in Computer Science, Iran, 2012.
 - ♦ Ranked 10th in National Entrance Exam for M.Sc in Computer Science, Iran, 2010.

Teaching

- ♦ Graph Streaming Algorithms and Lower Bounds (seminar graduate level)
 - CS 671 Rutgers University

(Fall 2020)

- ♦ Design and Analysis Of Data Structures And Algorithms II (graduate level)
 - CS 514 Rutgers University

(Spring 2020, Fall 2021)

- ♦ Design and Analysis of Computer Algorithms (undergraduate level)
 - CS 344 Rutgers University

(Fall 2019, Spring 2021, Spring 2022)

PROFESSIONAL & Program Committees:

ACTIVITIES

- International Conference on Randomization and Computation (RANDOM 2022)
- European Symposia on Algorithms (ESA 2022)
- ACM Symposium on Theory of Computing (STOC 2022)
- ACM SIAM Symposium on Discrete Algorithms (SODA 2022)
- SIAM Symposium on Simplicity in Algorithms (SOSA 2022)
- ACM Symposium on Principles of Distributed Computing (PODC 2021)
- ACM Symposium on Principles of Database Systems (PODS 2021)
- International Colloquium on Automata, Languages, and Programming (ICALP 2020)
- ACM SIAM Symposium on Discrete Algorithms (SODA 2020)

♦ Junior Program Committees:

- ACM Conference on Economics and Computation (EC 2021, EC 2022)
- Conference on Learning Theory (COLT 2021, COLT 2020)

♦ Guest Editorships:

• Co-editor for ACM Transactions on Algorithms (TALG) special issue for SODA, 2020

⋄ External Reviewer:

- Journals:
 - SIAM Journal on Computing (SICOMP)
 - ACM Transactions on Computation Theory (TOCT)
 - ACM Transactions on Algorithms (TALG)
 - Journal of Machine Learning Research (JMLR)
 - IEEE Transactions on Parallel and Distributed Systems (TPDS)
 - Theoretical Computer Science (TCS)

• Conferences:

- Symposium on Theory of Computing (STOC): 2015, 2018, 2019, 2020, 2021
- Symposium on Foundations of Computer Science (FOCS): 2018, 2019, 2020, 2021
- Symposium on Discrete Algorithms (SODA): 2017, 2018, 2019, 2021
- Computational Complexity Conference (CCC): 2020, 2021
- International Colloquium on Automata, Languages, and Programming (ICALP): 2016, 2017, 2018, 2019, 2021
- European Symposium on Algorithms (ESA): 2016, 2019, 2020, 2021
- Innovations in Theoretical Computer Science (ITCS): 2016, 2019, 2020, 2021, 2022
- Symposium on Principles of Distributed Computing (PODC): 2019, 2022
- International Symposium on Distributed Computing (DISC): 2020, 2021
- International Symposium on Theoretical Aspects of Computer Science (STACS): 2018, 2020, 2021

- Approximation, Randomization, and Combinatorial Optimization (APPROX-RANDOM): 2017, 2018, 2019, 2021
- ♦ National Science Foundation Panel Service for AF Algorithmic Foundations (2020, 2021)
- ♦ External Reviewer for the Icelandic Research Fund (2021)
- ♦ Guest Reviewer for SIGACT News, 2017 (review of SPAA 2017)
- ♦ Organizer of Rutgers/DIMACS theory seminar: 2019 present

⋄ Department Committees, Rutgers:

- Faculty hiring committee: 2020-2021
- Graduate committee: 2019 present
- PhD student admissions committee: 2019, 2020
- M.Sc student admissions committee: 2021, 2022

Mentoring

♦ Postdocs at Rutgers/DIMACS:

- Ariel Schvartzman (DIMACS postdoc, 2020 present)
- Nicole Wein (DIMACS postdoc, 2021 present)

♦ PhD Students at Rutgers:

- Chen Wang (2019 present)
- Vihan Shah (2020 present)
- Janani Sundaresan (2021 present)
- Parth Mittal (2021 present)

Master Students at Rutgers:

• Chaitanya Nalam (2020, now a PhD student at University of Michigan)

Undergraduate Students at Rutgers:

- Hoai-an Nguyen (2021 present)
- Sanjana Pendharkar (2020 2021)
- Polina Kochetova (2020, now a PhD student at Simon Fraser University)
- Vihan Shah (2020, now a PhD student at Rutgers)
- Manel Bermad (2020)
- Jakob Degen (2020)
- Arwa El-Hawwat (2019, now a MSc student at Rutgers)

♦ DIMACS REU Students:

- Glenn Sun (2021, UCLA)
- Andrew Chen (2020, CMU, now a PhD student at Cornell)
- Parth Mittal (2020, Charles University Prague, now a PhD student at Rutgers)
- Pankaj Kumar (2020, Charles University Prague, now a PhD student at Charles University)

⋄ Visiting Undergraduate Students:

- Nirmit Joshi (2020, VJTI Mumbai, now a PhD student at Northwestern)
- Milind Prabhu (2020, IIT Guwhati)

♦ PhD Students Worked Closely with outside of Rutgers:

- Soheil Behnezhad (University of Maryland, now a Motwani postdoc at Stanford)
- Raghuvansh Saxena (Princeton, now a postdoc at Microsoft Research New England)
- Sixue (Cliff) Liu (Princeton, now a postdoc at CMU)
- Yu Chen (University of Pennsylvania)

Grants

- ♦ National Science Foundation (NSF) CAREER award CCF-2047061: \$558,159
- ♦ Google Research Scholar Program Award: \$60,000

OUTREACH

- ♦ Annual lectures on "Algorithmic Thinking" given to high-school students at PACT, a summer program in Algorithmic and Combinatorial Thinking for high-school students, run by Prof. Rajiv Gandhi at Princeton (2018 – present)
- ♦ Mentoring undergraduate research as part of DIMACS REU program (4 students) and undergraduate independent studies and summer interns (8 students)
- ♦ Recipient of "Open and Affordable Textbook Program" award from Rutgers for developing affordable course materials for Algorithm Design course

Journal Papers

- ♦ Separating the Communication Complexity of Truthful and Non-Truthful Combinatorial Auctions S. Assadi, H. Khandeparkar, R. Saxena, M. Weinberg Accepted to SIAM journal on Computing (SICOMP), 2022 Invited paper in the **special issue** for STOC 2020 papers
- ⋄ Tight Bounds for Single-Pass Streaming Complexity of the Set Cover Problem S. Assadi, S. Khanna, Y. Li SIAM journal on Computing (SICOMP), 2021 Invited paper in the **special issue** for STOC 2016 papers
- ♦ Combinatorial Auctions Do Need Modest Interaction S. Assadi ACM Transactions on Economics and Computation (TEAC), 2020 Invited paper in the special issue for EC 2017 papers
- ♦ The Stochastic Matching Problem with (Very) Few Queries S. Assadi, S. Khanna, Y. Li ACM Transactions on Economics and Computation (TEAC), 2019 Invited paper in the **special issue** for EC 2016 papers
- ♦ Fast Convergence in the Double Oral Auction S. Assadi, S. Khanna, Y. Li, R. Vohra ACM Transactions on Economics and Computation (TEAC), 2018 Invited paper in the **special issue** for WINE 2015 and EC 2016 papers
- ⋄ On the Rectangle Escape Problem A. Ahmadinejad, S. Assadi, E. Emamjomeh-Zadeh, S. Yazdanbod, H. Zarrabi-Zadeh Theoretical Computer Science (TCS), 2017
- ⋄ A Compile-Time Optimization Method for WCET Reduction in Real-Time Embedded Systems through Block Formation M. Mohajjel, M. Taram, S. Assadi, A. Ejlali ACM Transactions on Architecture and Code Optimization (TACO), 2016
- ⋄ The Minimum Vulnerability Problem S. Assadi, E. Emamjomeh-Zadeh, A. Norouzi-Fard, S. Yazdanbod, H. Zarrabi-Zadeh Algorithmica, 2014 Invited paper in the **special issue** for ISAAC 2012 papers

Papers

Conference \diamond Deterministic Graph Coloring in the Streaming Model S. Assadi, A. Chen, G. Sun 54rd ACM Symposium on Theory of Computing, STOC 2022 Brooks' Theorem in Graph Streams: A Single-Pass Semi-Streaming Algorithm for Δ-Coloring S. Assadi, P. Kumar, P. Mittal
 54rd ACM Symposium on Theory of Computing, STOC 2022

 SPINE: Scaling up Programming-by-Negative-Example for String Filtering and Transformation C. Zuo, S. Assadi, D. Deng

ACM International Conference on Management of Data, SIGMOD 2022

An Asymptotically Optimal Algorithm for Maximum Matching in Dynamic Streams
 S. Assadi, V. Shah

The 13th Innovations in Theoretical Computer Science, ITCS 2022

Sublinear Time and Space Algorithms for Correlation Clustering via Sparse-Dense Decompositions
 S. Assadi, C. Wang

The 13th Innovations in Theoretical Computer Science, ITCS 2022

A Two-Pass (Conditional) Lower Bound for Semi-Streaming Maximum Matching
 S. Assadi

The 33rd Annual ACM-SIAM Symposium on Discrete Algorithms, SODA 2022

- Semi-Streaming Bipartite Matching in Fewer Passes and Optimal Space
 S. Assadi, A. Jambulapati, Y. Jin, A. Sidford, K. Tian
 The 33rd Annual ACM-SIAM Symposium on Discrete Algorithms, SODA 2022
- Ruling Sets in Random Order and Adversarial Streams
 S. Assadi, A. Dudeja
 International Symposium on Distributed Computing, DISC 2021
- On the Robust Communication Complexity of Bipartite Matching
 S. Assadi, S. Behnezhad
 Approximation, Randomization, and Combinatorial Optimization, RANDOM 2021
- Graph Connectivity and Single Element Recovery via Linear and OR Queries
 S. Assadi, D. Chakrabarty, S. Khanna
 European Symposium on Algorithms, ESA 2021
- Fully Dynamic Set Cover via Hypergraph Maximal Matching: An Optimal Approximation Through a Local Approach
 S. Assadi, S. Solomon

European Symposium on Algorithms, ESA 2021

- Beating Two-Thirds for Random-Order Streaming Matching
 S. Assadi, S. Behnezhad
 48th International Colloquium on Automata, Languages and Programming, ICALP 2021
- \diamond Graph Streaming Lower Bounds for Parameter Estimation and Property Testing via a Streaming XOR Lemma

S. Assadi, V. N

53rd ACM Symposium on Theory of Computing, STOC 2021

♦ Improved Truthful Mechanisms for Subadditive Combinatorial Auctions: Breaking the Logarithmic Barrier

S. Assadi, T. Kesselheim, S. Singla

The 32nd Annual ACM-SIAM Symposium on Discrete Algorithms, SODA 2021

A Simple Semi-Streaming Algorithm for Global Minimum Cuts
 S. Assadi, A. Dudeja
 The SIAM Symposium on Simplicity in Algorithms, SOSA 2021

 An Auction Algorithm for Bipartite Matching in Streaming and Massively Parallel Computation Models
 S. Assadi, C. Liu, R. Tarjan
 The SIAM Symposium on Simplicity in Algorithms, SOSA 2021

Near-Quadratic Lower Bounds for Two-Pass Graph Streaming Algorithms
 S. Assadi, R. Raz
 The 61st IEEE Symposium on Foundations of Computer Science, FOCS 2020

Multi-Pass Graph Streaming Lower Bounds for Cycle Counting, MAX-CUT, Matching Size, and Other Problems

S. Assadi, G. Kol, R. Saxena, H. Yu

The 61st IEEE Symposium on Foundations of Computer Science, FOCS 2020

Improved Bounds for Distributed Load Balancing
 S. Assadi, A. Bernstein, Z. Langley
 International Symposium on Distributed Computing, DISC 2020
 Best Paper Award

Palette Sparsification Beyond (Δ + 1) Vertex Coloring
 N. Alon, S. Assadi
 Approximation, Randomization, and Combinatorial Optimization, RANDOM 2020

Lower Bounds for Distributed Sketching of Maximal Matchings and Maximal Independent Sets
 S. Assadi, G. Kol, R. Oshman
 ACM Symposium on Principles of Distributed Computing, PODC 2020

Exploration with Limited Memory: Streaming Algorithms for Coin Tossing, Noisy Comparisons, and Multi-Armed Bandits

S. Assadi, C. Wang

52nd ACM Symposium on Theory of Computing, STOC 2020

Separating the Communication Complexity of Truthful and Non-Truthful Combinatorial Auctions
 S. Assadi, H. Khandeparkar, R. Saxena, M. Weinberg
 52nd ACM Symposium on Theory of Computing, STOC 2020
 Invited to SICOMP special issue for STOC 2020 papers

♦ Improved Truthful Mechanisms for Combinatorial Auctions with Submodular Bidders S. Assadi, S. Singla

 $60\mathrm{th}$ Annual IEEE Symposium on Foundations of Computer Science, FOCS 2019

Invited to SICOMP special issue for FOCS 2019 papers

Invited to **Highlights Beyond EC** in EC'20

Invited research article in SIGecom Exchanges

Secretary Ranking with Minimal Inversions
 S. Assadi, E. Balkanski, R. Paes Leme
 33rd Conference on Neural Information Processing Systems, NeurIPS 2019

- Massively Parallel Algorithms for Finding Well-Connected Components
 S. Assadi, X. Sun, O. Weinstein
 ACM Symposium on Principles of Distributed Computing, PODC 2019
- Distributed Weighted Matching via Randomized Composable Coresets
 S. Assadi, M. Bateni, V. Mirrokni
 36th International Conference on Machine Learning, ICML 2019
- When Algorithms for Maximal Independent Set and Maximal Matching Run in Sublinear Time S. Assadi, S. Solomon.
 - 46th International Colloquium on Automata, Languages and Programming, ICALP 2019
- Distributed and Streaming Linear Programming in Low Dimensions
 S. Assadi, N. Karpov, Q. Zhang.
 38th Annual ACM Symposium on Principles of Database Systems, PODS 2019
 Invited to TODS special issue for PODS 2019 papers
- Polynomial Pass Lower Bounds for Graph Streaming Algorithms
 S. Assadi, Y. Chen, S. Khanna.
 51st ACM Symposium on Theory of Computing, STOC 2019
- A Simple Sublinear-Time Algorithm for Counting Arbitrary Subgraphs via Edge Sampling
 S. Assadi, M. Kapralov, S. Khanna.
 10th Innovations in Theoretical Computer Science, ITCS 2019
- Sublinear Algorithms for (Δ + 1) Vertex Coloring
 S. Assadi, Y. Chen, S. Khanna.
 30th Annual ACM-SIAM Symposium on Discrete Algorithms, SODA 2019
 Best Paper Award
 Invited to Highlights of Algorithms, HALG 2020
- Coresets Meet EDCS: Algorithms for Matching and Vertex Cover on Massive Graphs
 S. Assadi, M. Bateni, A. Bernstein, V. Mirrokni, C. Stein
 30th Annual ACM-SIAM Symposium on Discrete Algorithms, SODA 2019
- Fully Dynamic Maximal Independent Set with Sublinear in n Update Time
 S. Assadi, K. Onak, B. Schieber, S. Solomon.
 30th Annual ACM-SIAM Symposium on Discrete Algorithms, SODA 2019
- Stochastic Submodular Cover with Limited Adaptivity
 A. Agarwal, S.Assadi, S. Khanna.
 30th Annual ACM-SIAM Symposium on Discrete Algorithms, SODA 2019
- Towards a Unified Theory of Sparsification for Matching Problems
 S. Assadi, A. Bernstein.
 2nd Symposium on Simplicity in Algorithms, SOSA 2019
- Fully Dynamic Maximal Independent Set with Sublinear Update Time
 S. Assadi, K. Onak, B. Schieber, S. Solomon.
 50th Annual ACM Symposium on the Theory of Computing, STOC 2018
- Tight Bounds on the Round Complexity of the Distributed Maximum Coverage Problem S. Assadi, S. Khanna.

29th Annual ACM-SIAM Symposium on Discrete Algorithms, SODA 2018

♦ Randomized Composable Coreset for Matching and Vertex Cover

S. Assadi, S. Khanna

29th Annual ACM Symposium on Parallelism in Algorithms and Architectures, SPAA 2017 Best Paper Award (co-winner)

Invited to Highlights of Algorithms, HALG 2018

♦ Learning with Limited Rounds of Adaptivity: Coin Tossing, Multi-Armed Bandits, and Ranking from Pairwise Comparisons

A. Agarwal, S. Agarwal, S. Assadi, S. Khanna 30th Annual Conference on Learning Theory, COLT 2017

♦ Combinatorial Auctions Do Need Modest Interaction

S. Assadi

18th ACM Conference on Economics and Computation, EC 2017

Invited to **TEAC special issue** for EC 2017 papers

Invited to Highlights of Algorithms, HALG 2017

Best Student Paper Award

♦ The Stochastic Matching Problem: Beating Half with a Non-Adaptive Algorithm S. Assadi, S. Khanna, Y. Li 18th ACM Conference on Economics and Computation, EC 2017

⋄ Tight Space-Approximation Tradeoff for the Multi-Pass Streaming Set Cover Problem S. Assadi 36th Annual ACM Symposium on Principles of Database Systems, PODS 2017

♦ On Estimating Maximum Matching Size in Graph Streams S. Assadi, S. Khanna, Y. Li 28th Annual ACM-SIAM Symposium on Discrete Algorithms, SODA 2017

⋄ Tight Bounds for Single-Pass Streaming Complexity of the Set Cover Problem S. Assadi, S. Khanna, Y. Li 48th Annual Symposium on the Theory of Computing, STOC 2016 Invited to SICOMP special issue for STOC 2016 papers

♦ The Stochastic Matching Problem With (Very) Few Queries S. Assadi, S. Khanna, Y. Li 17th ACM Conference on Economics and Computation, EC 2016 Invited to **TEAC special issue** for EC 2016 papers

♦ Algorithms for Provisioning Queries and Analytics S. Assadi, S. Khanna, Y. Li, V. Tannen 19th International Conference on Database Theory, ICDT 2016

Maximum Matchings in Dynamic Graph Streams and the Simultaneous Communication Model S. Assadi, S. Khanna, Y. Li, G. Yaroslavtsev 27th Annual ACM-SIAM Symposium on Discrete Algorithms, SODA 2016

 Dynamic Sketching for Graph Optimization Problems with Applications to Cut-Preserving Sketches S. Assadi, S. Khanna, Y. Li, V. Tannen 35th IARCS Annual Conference on Foundations of Software Technology and Theoretical Computer

Science, FSTTCS 2015

- Fast Convergence in the Double Oral Auction
 S. Assadi, S. Khanna, Y. Li, R. Vohra
 11th Conference on Web and Internet Economics, WINE 2015
 Best Paper Award
 Invited to TEAC special issue for WINE 2015 and EC 2016 papers
- Online Assignment of Heterogeneous Tasks in Crowdsourcing Markets
 S. Assadi, J. Hsu, S. Jabbari
 3rd AAAI Conference on Human Computation & Crowdsourcing, HCOMP 2015
- On The Rectangle Escape Problem
 S. Assadi, E. Emamjomeh-Zadeh, S. Yazdanbod, H. Zarrabi-Zadeh
 25th Canadian Conference on Computational Geometry, CCCG 2013
- The Minimum Vulnerability Problem
 S. Assadi, E. Emamjomeh-Zadeh, A. Norouzi-Fard, S. Yazdanbod, H. Zarrabi-Zadeh
 23rd International Symposium on Algorithms and Computation, ISAAC 2012
 Invited to Algorithmica special issue for ISAAC 2012 papers

Invited Talks

♦ Workshops and Other Events:

- Workshop on Algorithms for Large Data (Online), WALDO 2021, "Multi-Pass Graph Streaming Lower Bounds for Parameter Estimation and Property Testing Problems", August 2021
- INFORMS Session on Bandits Meet Optimization, "Exploration with Limited Memory: Streaming Algorithms for Multi-Armed Bandits", November 2020
- Highlights of Algorithm Conference, "Sublinear Algorithms for $(\Delta + 1)$ Vertex Coloring", August 2020
- New York Area Theory Day, "Sublinear Algorithms for $(\Delta + 1)$ Vertex Coloring", May 2019
- Simons Institute meeting on Algorithms and Geometry Collaboration , "Sublinear Algorithms for $(\Delta + 1)$ Vertex Coloring", February 2019
- Simons Institute workshop on Sublinear Algorithms and Nearest-Neighbor Search, "Sublinear Algorithms for $(\Delta + 1)$ Vertex Coloring", November 2018
- Linear Sketching as a Tool for Everything workshop at FOCS'17, "Lower Bounds for Linear Sketches of Approximate Matchings and Matrix Rank", October 2017

♦ Seminars and Colloquia:

- Rutgers Discrete math Seminar, "Palette Sparsification for Vertex Coloring", October 2021
- University of Washington Theory Seminar, "Multi-Pass Graph Streaming Lower Bounds for Parameter Estimation and Property Testing Problems", April 2020
- Rutgers/DIMACS Theory Seminar, "Improved Truthful Mechanisms for Combinatorial Auctions with Submodular Bidders", September 2019
- MIT Theory of Computation Colloquium, "Sublinear Algorithms for (Δ+1) Vertex Coloring", May 2019
- Cornell CS Theory Seminar, "Sublinear Algorithms for $(\Delta + 1)$ Vertex Coloring", May 2019
- Google NYC Research Seminar, "Sublinear Algorithms for $(\Delta + 1)$ Vertex Coloring", April 2019
- Princeton Theory Seminar, "Polynomial Pass Lower Bounds in Graph Streams", April 2019
- Rutgers/DIMACS Theory Seminar, "Polynomial Pass Lower Bounds in Graph Streams", March 2019

- TCS+ Online Seminar, "A Simple Sublinear-Time Algorithm for Counting Arbitrary Subgraphs via Edge Sampling", February 2019
- Indiana Theory Seminar, "Tight Bounds on the Round Complexity of the Distributed Maximum Coverage Problem", November 2017
- Columbia Theory Seminar, "Tight Bounds on the Round Complexity of the Distributed Maximum Coverage Problem", October 2017
- IBM Watson Research Seminar, "Randomized Composable Coreset for Matching and Vertex Cover", September 2017
- Google NYC Research Seminar, "Learning with Limited Rounds of Adaptivity", July 2017
- Upenn Theory Seminar, "Combinatorial Auctions Do Need Modest Interaction", April 2017
- Johns Hopkins Algorithms and Complexity Seminar, "Matching Size and Matrix Rank Estimation in Data Streams", April 2017
- Google NYC Research Seminar, "Tight Bounds for Single-Pass Streaming Complexity of the Set Cover Problem", November 2016
- Columbia Theory Seminar, "Tight Bounds for Linear Sketches of Approximate Matchings", January 2016
- Upenn Theory Seminar, "Tight Bounds for Linear Sketches of Approximate Matchings", January 2016