Candidate for Chair

Mahdi Cheraghchi
University of Michigan, Ann Arbor, MI, USA

BIOGRAPHY

Academic Background:
Ph.D., EPFL, 2010, Computer Science.

Professional Experience:
Associate Professor, University of Michigan, Ann Arbor, MI, 2022 – Present;
Assistant Professor, University of Michigan, Ann Arbor, MI, 2019 – 2022;
Lecturer (Assistant Professor), Imperial College London, UK, 2015 – 2019.

Professional Interest:
Coding theory, Information theory, Computational Complexity, Derandomization theory, Information-theoretic Cryptography.

Membership and Offices in Related Organizations:
Treasurer, Computational Complexity Foundation, 2023 – Present.

STATEMENT

Serving SIGACT as Chair will be a great honor that I'm committed to approaching meticulously. In addition to leading the regular business, I will pursue new initiatives in numerous directions. I will be inspired by the efforts undertaken by other SIGs that SIGACT has yet to embrace. I will strive to make SIGACT more inclusive and more global, among other activities, by designating a committee or officers dedicated to DEI service, helping form regional chapters, finding solutions to enhance travel awards for students outside the US, making STOC more accessible to individuals affected by visa challenges, increasing DEI-related activities at conferences, and more.

I will also help solicit funds for community grants and extend and improve SIGACT-sponsored prizes. On a broader level, I will work on reinforcing the prominence of CS theory in the broader CS community, considering the rapidly changing landscape of CS research in recent years. I will help raise awareness within the theory community regarding such challenges, which aren't always as satisfying as proving theorems but can at times be more crucial. Throughout this, I will actively seek input and feedback from the global SIGACT community.

Candidate for Chair

Funda Ergun
Indiana University, Bloomington, IN, USA

BIOGRAPHY

Academic Background:
Ph.D., Cornell University, 1998, Computer Science.

Professional Experience:
Professor, Indiana University, Bloomington, IN, 2013 – Present;
Program Director (AF) CCF, National Science Foundation, Alexandria, VA,
2019 – 2023;
Asst/Assoc/full Professor, Simon Fraser University, Burnaby, BC, Canada, 2004 – 2013.

Professional Interest:
Sublinear Algorithms, Randomized Algorithms, Algorithms for computational biology,
Network algorithms, Cloud algorithms.

ACM Activities:
PC Member, SPAA, 2019;
PC Member, SODA, 2012.

Membership and Offices in Related Organizations:
PC Member, FOCS, 2024 – Present;
Associate Editor, IEEE Transactions on Cloud Computing, 2020 – Present;
Algorithms Track Chair, ICDCS, 2022.

Awards Received:
Keynote Speaker at COCOON 2024, 2023;
NSERC Discovery Accelerator, 2015.

STATEMENT

I am honored to be nominated for SIGACT Chair. My vision for this position comes from
my academic career, as well as my recent four years at NSF as an Algorithmic
Foundations Program Director in the Computing/Communication Foundations (CCF)
Division (during part of which I served as Deputy Division Director of CCF).

I believe SIGACT should maintain strong communication with the research community
to determine research priorities, and strengthen connections with NSF and other
government agencies, independent research organizations, industry, and all manners of

educational institutions. This not only promotes the exchange of ideas and joint activities, but also facilitates fundraising.

Theoretical Computer Science underlies all CS research, but is sometimes not well understood, even in the general research community. We should ensure that the field remains vibrant and well-populated and is attractive for young researchers. We should increase visibility through the success of our conferences, publications, and our online presence, and design new activities, adjusting to the evolving research environment. We should pay special attention to increasing the diversity of our community, as well as the well-being of our members through explicit mentoring at conferences and other events.

Candidate for Member-at-Large

Erin W. Chambers
Saint Louis University, St. Louis, MO, USA

BIOGRAPHY

Academic Background:
Ph.D., University of Illinois Urbana-Champaign, 2008, Computer Science.

Professional Experience:
Professor, Saint Louis University, St. Louis, MO, 2008 – 2024;
Graduate student, University of Illinois at Urbana-Champaign, Urbana, IL, 2002 – 2008.

Professional Interest:
Algorithms, Computational topology, Computational geometry, Data Structures, Topological Data Analysis.

Membership and Offices in Related Organizations:
CATCS, SIGACT, 2021 – Present;
SafeTOC organizer, SafeTOC theory initiative, 2017 – Present;
Computational geometry steering committee, Society of Computational Geometry, 2016 – 2020.

STATEMENT

I am primarily active in computational topology and geometry community, with a main focus on shape analysis using topology and geometry, as well as more general interests in combinatorial algorithms, data structures, and algebraic topology. Complementing this work, I have been active in research projects to study and improve the culture and climate in computer science and mathematics.

I have served on initiatives such as the SafeTOC organizing committee and the SIGACT Committee for the Advancement of Theoretical Computer Science, as well as on the Computational Geometry Steering Committee. I am also active in the Association for Women in Mathematics, where I help support efforts to grow research communities for women and gender minorities; I was on the steering committee for several years for the networks focused on Women in Computational Topology and Women in Shape Analysis. I'm passionate about equity in our field, as well as about making connections between theory and practical applications.

Candidate for Member-at-Large

Kenneth L. Clarkson
IBM Research, San Jose, CA, USA

BIOGRAPHY

Academic Background:
Ph.D., Stanford University, 1985, Computer Science.

Professional Experience:
Distinguished Research Staff Member, IBM Research, San Jose, CA, 2014 – Present;
Senior Manager, Theory Group, IBM Research, San Jose, CA, 2008 – 2018;
Manager, Theory of Computation Group, IBM Research, 2023 – Present;
Distinguished Member of Technical Staff, Bell Laboratories, Murray Hill, NJ, 2000 – 2007.

Professional Interest:
Algorithms, Computational Geometry, Numerical Linear Algebra, Machine Learning.

ACM Activities:
Member, SIGACT Executive Committee, 2021 – Present;
Member, Committee for Advancement of Theoretical Computer Science, 2015 – 2022;
PC Member (three times), STOC, 2010 – 2022;
PC Member (six times, chair once), SODA, 1994 – 2023.

Membership and Offices in Related Organizations:
Co-editor-in-chief, Journal of Discrete and Computational Geometry, 2015 – Present;
Co-editor-in-chief, Journal of Computational Geometry, 2009 – Present;
PC Member (three times), FOCS, 1997 – 2013;
PC Member (six times, chair once), SoCG, 1989 – 2023.

Awards Received:
Test of Time Award, SoCG (inaugural), 2020;
Best Paper Award, STOC, 2013; this paper also received the STOC Test-of-Time Award, 2023;
ACM Fellow, 2008;
Best Paper Award, IEEE Vehicular Technology Conference, 2007.

STATEMENT

It has been an honor and a pleasure to serve on the SIGACT board; encouraged by the other board members, I am running again, to try to give some continuity across board terms. During the current term, we started a community grant program, and worked

toward updating and expanding in scope the SIGACT and STOC webpages and improving their maintainability. (As the publicity chair, I maintained the SIGACT webpage content, and would continue to do so if the new board feels it appropriate.)

These efforts go toward fulfilling my goals as a board member. Quoting my previous statement: as a research staff member at Bell Labs and at IBM Research, I've seen the interaction of theory and practice, often at its best, and participated in that interaction myself. As the manager of the IBM Almaden theory group for many years, part of my job was to encourage that interaction, and to explain as best I could the role and contributions of theory to my colleagues in the broader IBM scientific community. Such engagement, encouragement, and explanation are important to keeping the theory community vibrant and healthy, by attracting gifted students of all kinds, by helping theorists get hired and promoted, and not least, by helping our community to continue to do profound and beautiful scientific work. It is also important to *be* a community, with interaction among subfields, for many of the same reasons. These are vital issues I would work on, if elected to the SIGACT board, on which it would be an honor to serve.

Candidate for Member-at-Large

Edith Cohen
Google Research, Palo Alto, CA, USA

<u>BIOGRAPHY</u>

<u>Academic Background:</u>
Ph.D., Stanford University, 1991, Computer Science.

<u>Professional Experience:</u>
Research Scientist, Google Research, Palo Alto, CA, 2015 – Present;
Visiting Full Professor, Tell Aviv University, Tel Aviv, Israel, 2012 – Present;
Research Scientist, Microsoft Research, Mountain View, CA, 2012 – 2014.

<u>Professional Interest:</u>
Design and Analysis of Algorithms, Sketching and Streaming Algorithms, Algorithms for
Machine Learning, Differential Privacy.

<u>ACM Activities:</u>
PC Chair of ACM STOC Conference, SIGACT, 2019;
PC Co-Chair of ACM SIGMETRICS, 2022;
Member, SIGACT Committee for the Advancement of Theoretical Computer Science,
2022-2024.

<u>Membership and Offices in Related Organizations:</u>
Member, ESA Test of Time Award committee, EATCS, 2021-2023.

<u>Awards Received:</u>
ISF Research Grant, 2023;
ISF Research Grant, 2019;
ACM Fellow, 2017;
IEEE Communication Society William R. Bennett Prize, 2007.

<u>STATEMENT</u>

I am honored to have been asked to run as a SIGACT Member at Large. I hope to be able
to give back to the community in which I grew as a researcher. My goal is to listen and try to
improve as needed, with no specific agenda.

Candidate for Member-at-Large

Ravi Kumar
Google, Mountain View, CA, USA

BIOGRAPHY

Academic Background:
Ph.D., Cornell University, 1998, CS.

Professional Experience:
Research Scientist, Google, Mountain View, CA, 2012 – Present;
Research Scientist, Yahoo, Sunnyvale, CA, 2005 – 2012;
Research Staff Member, IBM Almaden, San Jose, CA, 1998 – 2005.

Professional Interest:
Algorithms for massive data, ML/Privacy, Theory of Computation.

Awards Received:
ACM STOC (20y) Test of Time, 2023;
ACM Fellow, 2021;
ACM Web Conference Test of Time, 2017.

STATEMENT

I am honored to have been asked to run for the SIGACT Board position. I have been part of the TCS community ever since my graduate school days. Additionally, I currently serve on the Simons Scientific Advisory board and the CATCS board. I believe these experiences will stand me in good stead for the SIGACT board position. If elected, with 25 years of experience in industry research, I hope to leverage this background to introduce new ideas and contribute to the flourishing of the TCS community.

Aaron Sidford
Stanford University, Stanford, CA, USA

BIOGRAPHY

Academic Background:
Ph.D., Massachusetts Institute of Technology, 2015, Electrical Engineering and Computer Science.

Professional Experience:
Associate Professor, Management Science and Engineering and Computer Science, Stanford University, Stanford, CA, USA, 2023 – Present;
Assistant Professor, Management Science and Engineering and Computer Science, Stanford University, Stanford, CA, USA, 2021 – 2023;
Assistant Professor, Management Science and Engineering, Stanford University, Stanford, CA, USA, 2016 – 2021.

Professional Interest:
Theoretical computer science, Design and analysis of algorithms, Optimization theory.

ACM Activities:
Program committee member, STOC 2021 , 2021 – 2021;
Co-chair workshop committee, STOC 2021, 2021 – 2021;
Program committee member, STOC 2018, 2018 – 2018;
Co-organizer, User-Friendly Tools from Continuous Optimization, STOC 2017.

Membership and Offices in Related Organizations:
Co-lead organizer, Data Structures and Optimization for Fast, Simons Institute for the Theory of Computing, Fall 2023;
Co-organizer, OPT+ML Workshop, NeurIPS 2023;
INFORMS Nicholson student paper competition committee member, INFORMS 2021-2022.

Awards Received:
Best Paper Award, Conference on Learning Theory (COLT 2022), 2022;
Microsoft Research Faculty Fellowship, 2020;
Faculty Teaching Award, ICME, Stanford University, 2019;
Honorable Mention, 2015 ACM Doctoral Dissertation Award, 2016.

STATEMENT

It is a great honor to have the opportunity to serve on the ACM SIGACT Executive Committee. I am running for office in the hopes of contributing more deeply to the vibrant theoretical computer science (TCS) community that has provided extensive support for my colleagues, my students, my friends, and myself over the past decade. From the first STOC conference I attended in 2013, through the advent of TheoryFest, to the most recent STOC as part of FCRC, I am appreciative of the profound positive effect that ACM SIGACT can have on binding the TCS community, facilitating the growth of its members, and making TCS advances broadly accessible. I am excited to take what I have learned from organizational experiences within the TCS community, e.g., STOC, FOCS, and the Simons Institute, and related communities, e.g., NeurIPS, INFORMS, and ICCOPT, to aid ACM SIGACT in its endeavors. Thank you for your consideration and your support of ACM SIGACT and the broader TCS community.

Candidate for Member-at-Large

Virginia Vassilevska Williams
MIT, Cambridge, MA, USA

BIOGRAPHY

Academic Background:
Ph.D., Carnegie Mellon University, 2008, Computer Science.

Professional Experience:
Professor, MIT, Cambridge, MA, 2022 – Present;
Associate Professor, MIT, Cambridge, MA, 2017 – 2022;
Assistant Professor, Stanford, Stanford, CA, 2013 – 2017.

Professional Interest:
Theoretical Computer Science.

Awards Received:
Simons Investigator in Computer Science, 2023;
Google Faculty Research Fellowship, 2019;
NSF CAREER Award, 2017;
Alfred P. Sloan Research Fellow, 2017.

STATEMENT

I am excited to help SIGACT continue to foster and promote theoretical computer science throughout the world. A bit on my experience: I was PC Chair of STOC'21 and have been a co-organizer of the TCS Women / TCS For All events at STOC and FOCS since the very beginning. I hope to be able to bring new ideas to the SIGACT table while continuing its current mission.