

Candidate for Chair

Jonathan D. Hauenstein
University of Notre Dame, IN, USA

BIOGRAPHY

Academic Background:

Ph.D., University of Notre Dame, 2009, Mathematics.

Professional Experience:

Professor (Assistant/Associate/Full), University of Notre Dame, IN, USA, 2014 – Present;
Associate Chair of Dept. of Applied & Computational Mathematics & Statistics,
University of Notre Dame, IN, USA, 2018 – Present;
Assistant Professor, North Carolina State University, Raleigh, NC, USA, 2012 – 2014.

Professional Interest:

Numerical Algebraic Geometry, Symbolic-Numeric Computation, Applications of
Computational Algebraic Geometry, Software Development, Optimization.

ACM Activities:

Member of Program Committee, ISSAC 2021, 2021 – Present;
Chair of Software Presentations, ISSAC 2020;
Member of Program Committee, ISSAC 2019;
Member of Poster Committee, ECCAD 2017.

Membership and Offices in Related Organizations:

Chair, SIAM Activity Group in Algebraic Geometry, 2018 – 2019;
Secretary, International Congress on Mathematical Software, 2016 – Present;
Secretary, SIAM Activity Group in Algebraic Geometry, 2016 – 2017.

Awards Received:

College Research Award, College of Science, U. of Notre Dame, 2020;
Joyce Award for Excellence in Undergraduate Teaching, U. of ND, 2020;
Office of Naval Research Young Investigator Award, 2016;
Sloan Research Fellowship, 2014.

STATEMENT

It is an honor to have been asked to run for SIGSAM Chair. My recent experience as the Chair of the SIAM Activity Group in Algebraic Geometry along with extensive experience with several ISSAC and ECCAD meetings has helped me appreciate professional leadership positions and the SIGSAM community. SIGSAM is well positioned for

continued growth due to the strong foundational developments and growing applications of computer algebra and symbolic computing.

Some key areas to continue the advancement of SIGSAM that I plan to focus on include the engagement of existing members and recruitment of new members with a particular focus on early career researchers and broadening participation in SIGSAM. This will ensure that SIGSAM meets the needs of its current members as well as positioning SIGSAM to thrive long term by cultivating new members, ideas, and applications in computer algebra and symbolic computing.

Candidate for Chair

Veronika Pillwein
Johannes Kepler University (JKU), Linz, Austria

BIOGRAPHY

Academic Background:

Ph.D., Johannes Kepler University, Linz, 2008, Mathematics.

Professional Experience:

Associate Professor, RISC, JKU, Linz, Austria, 2019 – Present;
Assistant Professor, RISC, JKU, Linz, Austria, 2010 – 2019.

Professional Interest:

Special Functions, Inequalities, Difference and Differential Equations, Cylindrical Algebraic Decomposition, Applications of Computer Algebra to Problems in Numerics.

Membership and Offices in Related Organizations:

Steering Committee: Member-at-large, ISSAC, 2020 – 2023.

Awards Received:

ISSAC Best Paper by "Fachgr. Computeralgebra" (with Kauers), 2010.

STATEMENT

All of us working in Symbolic Computation have benefited from the activities of ACM and SIGSAM – whether we are members or not. I feel honored to have been nominated as candidate for Chair. In the previous years, there has been a strong effort to increase the number of members and to increase the visibility of researchers working in computer algebra to other fields. This should be continued. In particular, for the latter goal, I hope to draw from my experience coming from RISC and serving as director of the interdisciplinary doctoral program "Computational Mathematics: Numerical Analysis and Symbolic Computation" (since 2018).

Candidate for Vice Chair

Clement Pernet
Université Grenoble Alpes, Grenoble, France

BIOGRAPHY

Academic Background:

Habilitation, Univ. Joseph Fourier, 2014, High Performance and Reliable Algebraic Computing.

Professional Experience:

Associate Professor, Univ. Grenoble Alpes, Grenoble, 2009 – 2021;
Acting Assistant Professor, University of Washington, Seattle, WA, USA, 2008;
Postdoc, University of Waterloo, ON, USA, 2007.

Professional Interest:

Computer Algebra, Exact Linear Algebra, Coding Theory, Computer Security, Mathematical Software.

ACM Activities:

Secretary, ACM-SIGSAM, 2017 – Present ;
Associate Editor, ACM Transactions on Maths. Software, 2012 – Present;
Treasurer, ACM ISSAC, 2012;
General Chair, ACM PASCOS, 2015.

Awards Received:

ISSAC Distinguished Paper Award, 2015.

STATEMENT

SIGSAM has federated the computer algebra community worldwide for a long time. Over the years, I have experienced the value and strength of working within an international research community gathered around a strong conference, ISSAC, for which SIGSAM plays a central role. After having benefited from this community, I am willing to contribute back. Therefore, I am pleased to be running for the Vice Chair position. My previous experience as Secretary of SIGSAM has been very insightful, and I intend to keep working, as my predecessors did, with transparent and collegial interaction between the executive members and the ACM to allow SIGSAM to best serve the community. More specifically, I intend to:

- Maintain the strong relationship between SIGSAM and the conferences of the area: ISSAC as the lead venue of the field, but also other ones on more specific topics or at the intersection with other fields.

- Help identify and advertise outstanding contributions of our community, to a larger audience in the ACM communities, e.g., via selected papers in the CACM.
- Keep SIGSAM open to the international diversity of the community; first by the composition of its executive committee, but also through coordination with the various national organizations to better federate the community worldwide.

Candidate for Vice Chair

Chenqi Mou
Beihang University, Beijing, China

BIOGRAPHY

Academic Background:

Ph.D., Beihang University, China / UPMC, France, 2013, Applied Mathematics / Computer Science.

Professional Experience:

Associated Professor, School of Mathematical Sciences, Beihang University, Beijing, China, 2020 – Present;

Adjunct Researcher, Beijing Advanced Innovation Center for Big Data and Brain Comput, Beijing, China, 2018 – Present;

Deputy Director, Center for Computer Mathematics, Beihang University, Beijing, China, 2017 – Present.

Professional Interest:

Symbolic Computation, Computational Algebra, Algorithms, Graph Theory, Robotics.

ACM Activities:

Local Arrangement Co-Chair for ISSAC 2019, SIGSAM, 2019.

Membership and Offices in Related Organizations:

Member, Chinese Society of Computer Mathematics, 2016 – Present,

Dean Assistant, School of Mathematical Sciences, Beihang University, 2016 – 2018.

STATEMENT

It is my honor to run for Vice Chair of ACM SIGSAM. I have been an active participant of the ISSAC conference for a decade. In particular, I was a local arrangement co-chair for ISSAC 2019 and responsible for all the organizational issues in our team. I think we had done our utmost to offer the best to around 200 participants of the conference, hopefully leaving them with a memorable experience.

Besides ISSAC 2019, I have been involved in the organization of around twenty international or national conferences and workshops related to symbolic computation, and I am on the editorial boards of two related journals. I have also been an assistant to the dean of our department for three years, helping him to deal with various undergraduate issues. To summarize, I am experienced to work with colleagues from senior researchers to young students in various kinds of academic organizational activities.

If elected, I am willing to work diligently with other SIGSAM committee members to further increase SIGSAM's global influence from both scientific and educational aspects to make a more unified community of symbolic computation and related fields.

Candidate for Treasurer

Matthew England
Coventry University, Coventry, UK

BIOGRAPHY

Academic Background:

Ph.D., Heriot Watt University, 2009, Mathematics.

Professional Experience:

Associate Professor, Coventry University, Coventry, UK, 2019;
Assistant Professor, Coventry University, Coventry, UK, 2015 – 2019;
PostDoc, University of Bath, UK, 2012 – 2015.

Professional Interest:

Symbolic Computation Algorithms, Quantifier Elimination Technology, Polynomial Systems Analysis, Machine Learning for Computer Algebra Systems, Integration of Computer Algebra with Satisfiability Solvers.

ACM Activities:

Information Director, SIGSAM, 2015.

Membership and Offices in Related Organizations:

Ongoing PC Chair, Intl. Conf. Computer Algebra & Scientific Computation (CASC), 2019;
Steering Committee Member, SC-Square Workshop Series, 2017;
Senior Fellow, UK Higher Education Academy, 2019.

STATEMENT

I am honoured to have been asked to run for the SIGSAM Treasurer Position.

Over recent years I have led several EU and UK Research Council grants, giving me the necessary experience of budgeting and financial reporting required for the Treasurer position. I am also well integrated into the symbolic computation community, having served on numerous program committees (e.g., ISSAC 2018, MACIS 2019, Maple Conference 2020). In 2019, I was appointed as the PC Chair for the CASC conference (a position that runs for several years) and I am on the Steering Committee of the SC-Square Workshop Series.

I have been a member of SIGSAM since 2012 and have served SIGSAM as Information Director since 2015, maintaining the website and mailing lists. SIGSAM is an important organisation for our community: increasing the visibility of our research and supporting a variety of crucial community activities. I am hence committed to supporting its vital work.

Candidate for Treasurer

John P. May
Maplesoft, Waterloo, ON, Canada

BIOGRAPHY

Academic Background:

Ph.D., North Carolina State University, 2005, Mathematics.

Professional Experience:

Mathematical Software R&D, Maplesoft, Waterloo, ON, Canada, 2007 – Present;
Visiting Assistant Professor, University of Delaware, Newark, DE, USA, 2006 – 2007;
Visiting Lecturer and Researcher, University of Waterloo, Waterloo, ON, Canada,
2004 – 2006.

Professional Interest:

Mathematical Software, Computer Algebra, Symbolic Computation, Numerical Methods.

STATEMENT

I have been an ACM and SIGSAM member for almost twenty years, and in that time, I have participated in many SIGSAM sponsored events and helped with the organization of several as well, including being the Proceedings Editor of ISSAC in 2008 and being the General Chair of the East Coast Computer Algebra Day (ECCAD) held in Waterloo, ON in 2011. So, given my long history of involvement with this community, I would be honored to serve on the SIGSAM board as Treasurer if elected.

Candidate for Secretary

Angelos Mantzaflaris
Inria, Sophia Antipolis, France

BIOGRAPHY

Academic Background:

Ph.D., Inria, University of Cote d'Azur, 2011, Robust Algebraic Methods for Geometric Computing.

Professional Experience:

Researcher (tenured), Inria, Sophia Antipolis, France, 2020 – Present;
Senior Researcher, Johannes Kepler University, Linz, Austria, 2018 – 2019;
Research Scientist, RICAM, Austrian Academy of Sciences, Linz, Austria, 2012 – 2018.

Professional Interest:

Symbolic Computation, Algebraic Algorithms, Numerical Simulation, Optimization, Geometric Modeling.

Membership and Offices in Related Organizations:

Member, SIAM AG on Algebraic Geometry, 2010 – Present;
Member, SIAM AG on Geometric Design (2010-2015 and since 2020), 2010 – Present;
Member, SIAG AG on Computational Science and Engineering, 2020 – Present.

STATEMENT

I am deeply honored to be nominated for Secretary of SIGSAM. ISSAC was the very first conference I ever attended, where I first met many friends and colleagues and published my first paper over a decade ago; therefore, I would consider it a privilege to serve the community that has given me so much.

Over the years I have gained experience organizing and managing scientific events. I've co-organized several workshops and mini-symposia, with the most recent service being joining the organizing committee of ISSAC 2020, where I served as proceedings editor.

As Secretary, I would work with the other SIGSAM officers to further strengthen SIGSAM's value to the research community by keeping up to speed the SIGSAM members, contributing to our Business and Executive Committee meetings and reporting to ACM. I would also work to ensure the smooth continuation of ISSAC and its satellite events. I do believe that our research areas play a key role for both academia and industry, and I will put all my energy towards growing and revitalizing our community.

Candidate for Secretary

Shaoshi Chen
Chinese Academy of Sciences, Beijing, China

BIOGRAPHY

Academic Background:

Ph.D., École Polytechnique, 2011, Computer Science.

Professional Experience:

Associate Professor, AMSS, Chinese Academy of Sciences, Beijing, China, 2017 – Present;
Assistant Professor, AMSS, Chinese Academy of Sciences, Beijing, China, 2013 – 2017;
Fields-Ontario Postdoctoral Fellow, Fields Institute and University of Waterloo, Ontario, Canada, 2015 – 2016.

Professional Interest:

Symbolic Integration and Summation, Computational Differential and Difference Algebra, Algorithmic Combinatorics, Arithmetic Theory of Power Series, Algebraic Dynamics.

ACM Activities:

Steering Committee Member, ACM ISSAC, 2019 – Present;
Program Committee Member, ACM ISSAC, 2017 – 2018;
Poster Presentation Committee Chair, ACM ISSAC, 2015 – 2016;
Editorial Board Member of .ACM Communications in Computer Algebra, ACM SIGSAM, 2014 – Present.

Membership and Offices in Related Organizations:

Member, Chinese Society of Computer Mathematics (CSCM), 2016 – Present;
Member, SIAM Activity Group on Algebraic Geometry, 2017 – Present;
Member, American Mathematical Society, 2020 – Present.

Awards Received:

Wen-Tsun Wu's Yonth Award in Computer Mathematics (CSCM), 2019;
Outstanding Research Award (AMSS, Chinese Academy of Sciences), 2018;
ISSAC2014 Distinguished Poster Award (ISSAC), 2014;
Outstanding Research Award (AMSS, Chinese Academy of Sciences), 2014.

STATEMENT

It is my great honor to run for the position of Secretary of ACM SIGSAM. Since I attended my first ISSAC (regularly sponsored by SIGSAM) in 2009, I have been active in the community of symbolic computation, which is the home of my research. I have contributed 14 papers and one invited Tutorial talk to ISSAC, served as a steering committee member since 2019,

a program committee member in 2014 and 2018, poster committee member in 2013, chair in 2016, and as an editorial board member of the ACM Communications in Computer Algebra since 2014.

SIGSAM has played a significant role in supporting and promoting research in computer algebra, symbolic computation, and its applications. If elected, I will work with the other elected officers to further strengthening SIGSAM's success by attracting more members and increasing the impact of symbolic computation on mathematics and computer science.