

SIGSAM Business Meeting

Chris Brown
SIGSAM Chair

ISSAC 2020



Agenda

- ➊ Opening Remarks, Chris Brown, SIGSAM Chair
- ➋ Presentation of the 2019 Jenks Prize to Michael Stillman
- ➌ SIGSAM activities
- ➍ Financial Report, Dan Roche, SIGSAM Treasurer
- ➎ Closing

Presentation of the 2019 Jenks Prize

The ACM SIGSAM Richard Dimick Jenks Memorial Prize

- awarded biannually to “... recognize outstanding software engineering contributions in the field of computer algebra and to encourage future excellence in such research and development ...”
- past awards:
 - 2004 Award to the SINGULAR team of the University of Kaiserslautern
 - 2006 Award to John J. Cannon for work on MAGMA and Cayley
 - 2008 Award to the GAP Group: Groups, Algorithms and Programming
 - 2011 Award to the Maple Project at the University of Waterloo
 - 2013 Award to William Arthur Stein of the Sage Project
 - 2015 Award to Victor Shoup for NTL: A Library for doing Number Theory
 - 2017 Award to Stephen Wolfram for Wolfram|Alpha & Mathematica
- 2019 Selection committee: Michael Monagan, Chair
Dongming Wang, Allan Steel, Hans Schönemann, Jürgen Gerhard, SIGSAM Chair

Dear members of SIGSAM and the symbolic computation community,

It is my pleasure to inform you that the 2019 Jenks Prize Committee consisting of Dongming Wang, Allan Steel, Hans Schönemann, Jürgen Gerhard, Chris Brown and myself have voted to award

**The 2019 Richard D. Jenks Memorial Prize for Excellence
in Software Engineering Applied to Computer Algebra**

to

Michael Stillman

for the Macaulay and Macaulay2 computer algebra systems.

The Macaulay system, developed by Michael in collaboration with David Bayer, and first released in 1983, was the first computer algebra system devoted to Gröbner basis computation in commutative algebra. Macaulay2, developed by Michael in collaboration with Daniel Grayson, and released in 1996, included a completely new user level language which was designed to read more like mathematics. Macaulay2 included support for first class functions (closures), user-definable data types and infinite coefficient rings.

Macaulay and Macaulay2 have revolutionized the way research in commutative algebra and algebraic geometry is done. Over 2000 papers on arXiv refer to Macaulay2. Starting in 2006, there have been regular Macaulay2 meetings where mathematicians meet to develop Macaulay2 packages and advance their research agenda. This effort has spawned the creation of over 200 Macaulay2 packages and the Journal of Software for Algebra and Geometry. The most recent Macaulay2 workshop was held online because of COVID19 from June 1-5, 2020.

Although many others have contributed in different ways to Macaulay, Michael Stillman has been at the forefront of the design, creation, development, and application of Macaulay since its inception.

Michael Stillman is presently a professor of mathematics at Cornell university. He is actively involved in Macaulay2 development, coding, getting others involved, developing new algorithms and packages, and applying these to problems in string theory, dynamical systems, biology, statistics, and pure math. When not stuck at home due to COVID, he loves to travel and hike.

Michael Monagan
Chair, 2020 Jenks Prize Committee,
Department of Mathematics,
Simon Fraser University.

What is SIGSAM?

Since 1967 SIGSAM has been the largest international organization representing, promoting and supporting the computer algebra and symbolic computation scientific communities.

SIGSAM Officers

Officers

- Chair, Chris Brown (U.S. Naval Academy)
- Vice-Chair, Lihong Zhi (AMSS, China)
- Secretary, Clement Pernet (Grenoble, France)
- Treasurer, Dan Roche (U.S. Naval Academy)

Institutional

- Information Director, Matthew England (Coventry University, UK)
- CCA Editor, Wen-shin Lee (University of Antwerp, Belgium)
- Chief Tweeter, Alexander Konovalov (University of St Andrews, UK)
- Book Review Editor, Georg Regensburger (Austrian Academy of Sciences)

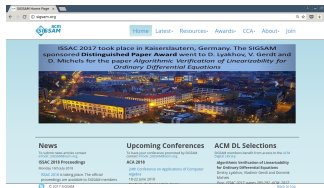
- New officers will be elected by the SIGSAM membership in early 2021!
The nominating committee will be appointed in the Fall.

SIGSAM Activities: Conference Support

- Sponsored and In-cooperation conferences: ISSAC, PASCO, ECCAD, ...
- Conference website hosting: ISSAC, PASCO, ECCAD
- ACM Digital Library: proceedings for both sponsored and in-cooperation events are eligible for inclusion in the ACM DL

SIGSAM Activities: Community Communication

- Website: sigsam.org



- Mailing Lists: reaches $\approx 2,000$ members of our community.
- Twitter: @acm_sigsam



SIGSAM Activities: Communications in Computer Algebra

SIGSAM publishes Communications in Computer Algebra (CCA), which it has done (in the past as the SIGSAM Bulletin) since 1965. (SIGSAM also has a seat on the TOMS Editorial Board)



SIGSAM Activities: Awards

SIGSAM Sponsors and Administers

- ISSAC Distinguished Paper Award (honorarium \approx \$500)
- ISSAC Distinguished Student Author Award (honorarium \approx \$500)
- Jenks Memorial Prize for Excellence in Software Engineering applied to Computer Algebra (honorarium \approx \$1,000)

SIGSAM nominates for ACM Fellowship (e.g. Erich Kaltofen)

SIGSAM Membership — area of concern!

- SIGSAM successfully completed its viability review by the ACM in July of 2018. Next review takes place in Summer of 2022. Preparing for the viability review, SIGSSAM officers identified membership as a primary concern

- ▶ June 30 2015 : 208
June 30 2016 : 188
June 30 2017 : 180
June 30 2018 : 163
June 30 2019 : 202
June 30 2020 : **149**

149 → 103 professional members, 5 student, 41 affiliate

Note: In the past, many renewals or new memberships come at the same time as ISSAC registration, which didn't really happen this year.

Note: With upcoming election of officers, this dip is unfortunate!

Recent Activities

- 2019 ACM SIGSAM Richard Dimick Jenks Memorial Prize awarded to Michael Stillman for Macaulay and Macauley2
- Last year, in an effort to do more to provide support and mentoring to students and researchers in the beginning part of their career, Sponsored first “Student and Early Researcher Mentoring Session” at ISSAC 2019.

Introduction to the Scientific Refereeing Process
presented by Manuel Kauers

That event was successful and I would like to continue with similar events. (Obviously, not done for ISSAC2020.)

SIGSAM Treasurer's Report

FY2020 Projections ¹²	Revenues	Expenses	
Member Dues	4,900		
Comm. Comput. Alg. (CCA)		3,500	
Awards ³		500	
Conferences	0	0	
Miscellaneous	100	200	
Account interest	2,200		
ACM	10,000	10,900	
TOTAL	17,200	15,100	+2,100

Projected account balance

USD \$89,300

(more than 10x the minimum required)

¹ All amounts in US dollars, rounded to nearest \$100

² Note: Budget runs from August 1 – July 31.

³ Does not include endowed awards, e.g. Jenks prize

Please consider SIGSAM involvement!

Find good ways to use our resources to
promote and improve our community.