



Annual Report

ACM Special Interest Group on Symbolic and Algebraic Computation

SIGSAM

July 2011 – June 2012

Submitted by: Jeremy Johnson, Chair

August 21, 2012

SIGSAM Communications in Computer Algebra

The Communications in Computer Algebra has been published since 1965 (previously SICSAM Bulletin and SIGSAM Bulletin). The CCA is published quarterly; however, only two double-issues are printed and mailed per year, with the four electronic issues appearing through the digital library and the SIGSAM website. The change to two rather than four printing was made to prevent delays and save money and is consistent with the wishes of many of our members.

Manuel Kauers (Austria) and Ilias S. Kotsireas (Canada) served as co-editors, with an editorial board consisting of Chris Brown (USA), Jean-Guillaume Dumas (France), Massimo Caboara (Italy), Laureano Gonzalez-Vega (Spain), Michael Wester (USA), Lihong Zhi (China), Eugene Zima (Canada). Four issues were published in the period covered by this report. Four issues were published in the period covered by this report (issues 177-180) with two printed copies. The CCA continued with a mix of refereed papers, conference and workshop poster abstracts (including ISSAC and ECCAD), dissertation abstracts and announcements of interest to the computer algebra community.

Conference and Event Sponsorship

ISSAC. The International Symposium for Symbolic and Algebraic Computation (ISSAC) for 2012 (37th annual conference) was held July 22-25, 2012 at the University of Grenoble, in Munich Germany. ISSAC 2012 was sponsored in full by INRIA, in cooperation with ACM SIGSAM. The proceedings were published by ACM Press and conference discounts were available to ACM and SIGSAM members. This

year's registration fee was reduced (early 230€, late 315 €, onsite 350€) in part due to the printed proceedings being optional and a lower, 10%, sponsorship fee.

ISSAC 2013 will be held June 22-25 in Boston. It is expected that the organizers will seek ACM sponsorship.

SIGSAM reserves a portion of its funds (referred to as the *ISSAC contingency fund*, and tracked by the SIGSAM treasurer to support the ISSAC conference series. The level of this *contingency fund* is currently USD 9,248. Given the excess ISSAC funds, it is hoped that the ACM/SIGSAM fee for the next ISSAC conference in Boston can be reduced to 10%, as was the case for INRIA sponsorship of this year's ISSAC conference. This reduction, along with a switch to on demand publication of the printed version of the proceedings, would be passed on to SIGSAM members and the general computer algebra community through a reduced conference registration fee. Such an arrangement would go a long way towards maintaining ACM/SIGSAM sponsorship for ISSAC.

The location for ISSAC 2014 was selected by vote at the ISSAC 2012 business meeting and will be held in Kobe Japan. It is anticipated that they will be sponsored by an organization in JAPAN and will seek ACM sponsorship.

ECCAD. SIGSAM sponsored the East Coast Computer Algebra Day (ECCAD'11) , in cooperation with ACM, on May 12, 2012, at Oakland University in Oakland MI. Poster abstracts from ECCAD'12 were published in the CCA issue 180.

Awards

SIGSAM sponsors prizes in computer algebra and nominates our best researchers for top-level awards and prizes.

ISSAC Awards. SIGSAM sponsors the ISSAC Distinguished Paper and Distinguished Student Author prizes. This is from an endowment with a value of USD 53,648 as of June 30, 2012.

- The ISSAC 2011 Distinguished Paper award was given to Akos Seress f for his paper "Construction of 2-Closed M-Representations".
- The ISSAC 2011 Distinguished Student Author Award was given to Wei Zhou in recognition of his paper "Computing Minimal Nullspace Bases," co-authored with George Labahn and Arne Storjohann, and to Romain Lebreton in recognition of his paper "Algorithms for the Universal Decomposition Algebra," co-authored with Éric Schost.

Jenks Memorial Prize. SIGSAM also sponsors and administers the ACM SIGSAM Richard Dimick Jenks Memorial Prize for Excellence in Software Engineering applied to Computer Algebra. The prize is given in alternating years and was not awarded this year. This award is granted from an endowment with a value of USD 29,454 as of June 30, 2012.

Transactions on Mathematical Software

SIGSAM has a seat on the editorial board of the ACM Transactions on Mathematical Software (TOMS). This position was previously held by Gene Cooperman of Northeastern University (USA). Michael Monagan from Simon Fraser University (Canada) has taken over this position.

Viability Review

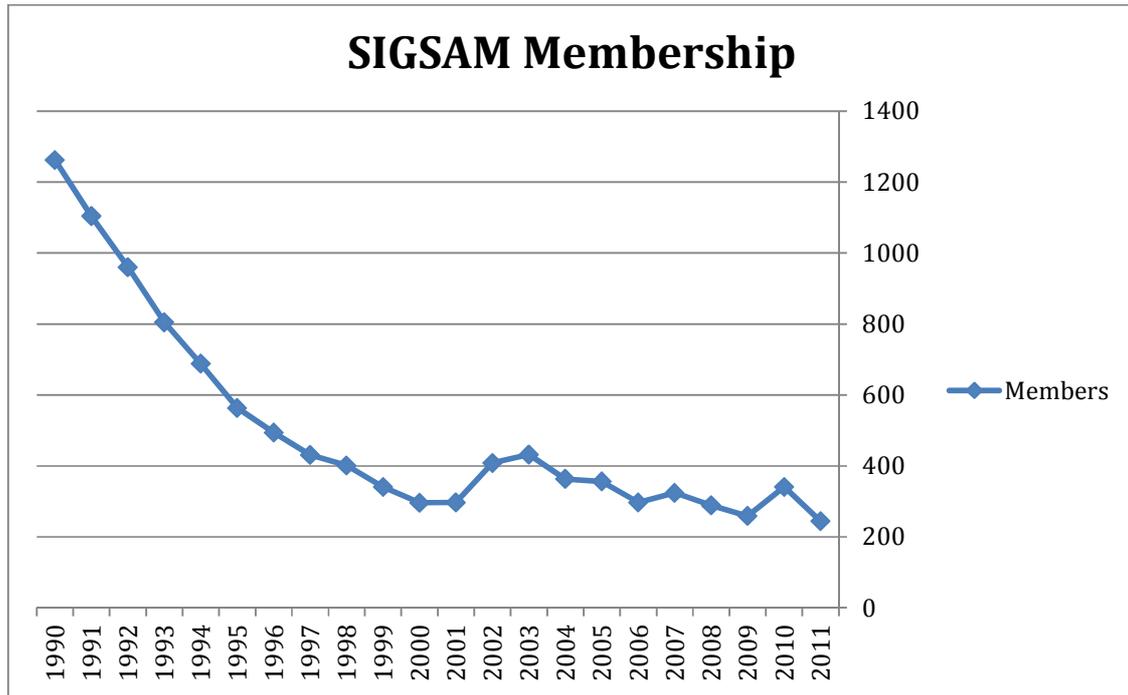
At the SIG Board meeting on March 27, 2009, SIGSAM was found to be viable and given a renewal for the standard four-year period. For the previous two renewals, SIGSAM had only been given two-year renewals. SIGSAM will be preparing for its viability review in 2013. A large part of this will be to review membership benefits and come up with a plan to increase membership and community engagement.

SIGSAM Elections

The current ACM/SIGSAM officers will be completing their second 2 year term at the end of this fiscal year. An election will be held in the upcoming year to determine the new officers. Mark Giesbrecht, former chair of SIGSAM, will serve as chair of the nominating committee.

SIGSAM Membership

As of June 30, 2012, SIGSAM had 241 members, which dropped from 251 members the previous year. While membership has leveled off from the significant drop (from 346) the previous year, the current drop continues a general downward trend in membership and remains the primary concern for SIGSAM. The following chart shows the decline in SIGSAM membership over the last 21 years.



The SIGSAM officers have started to investigate this trend along with a review of member benefits, and will determine a plan going forward to raise membership.

SIGSAM Advisory Board

The Advisory Board advises the Chair on matters of interest to SIGSAM. It consists of the officers, the Past Chair, the newsletter Editor(s) and up to ten Members at Large elected by ballot by the members of SIGSAM at the Annual General Meeting. The advisory board has not been active in the last four years and the SIGSAM officers will look at how best to use the advisory board and a plan to reactivate the board.

SIGSAM Finances

The attached financial report was prepared by Agnes Szanto (SIGSAM Treasurer), which is summarized below.

Summary

We inherited a financially robust SIGSAM, with an opening balance of over \$47,000, well above what is minimally required, thanks to the fiscally conservative policies of our previous leaderships. SIGSAM was financially successful during the 3 years between 2009-12. During the 2009-2010 year SIGSAM added around \$3000 to the balance, and during the

2010-11 fiscal year it added around \$100. Due mainly to the success of the ISSAC'11 conference, during the 2011-12 fiscal year SIGSAM is projected to add around \$6000 to the budget. There is a slight loss budgeted for the fiscal year 2012-13, which will be paid from the previous year's surplus.