



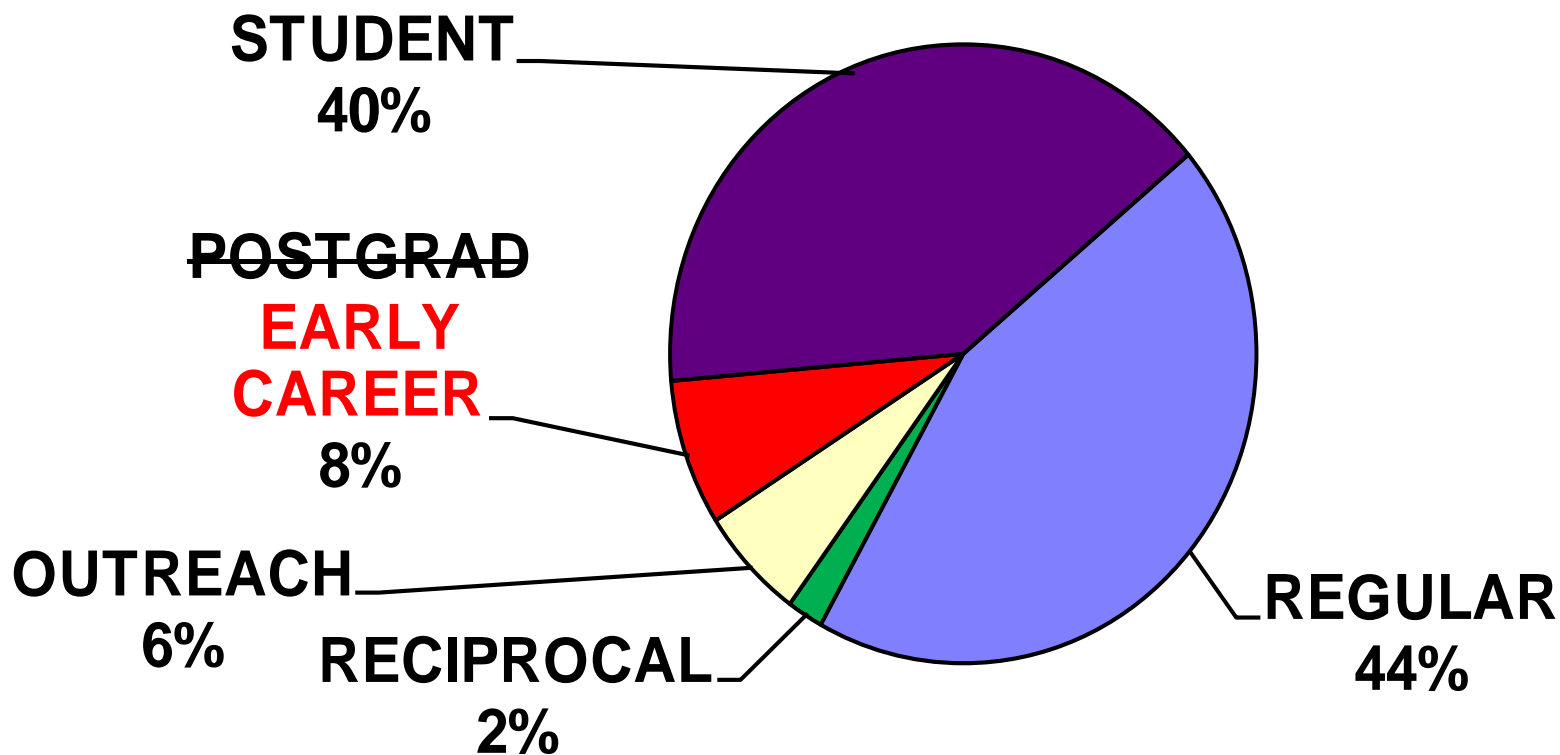
**SIAM ANNUAL
BUSINESS MEETING
July 2014**

**Irene Fonseca
SIAM President**

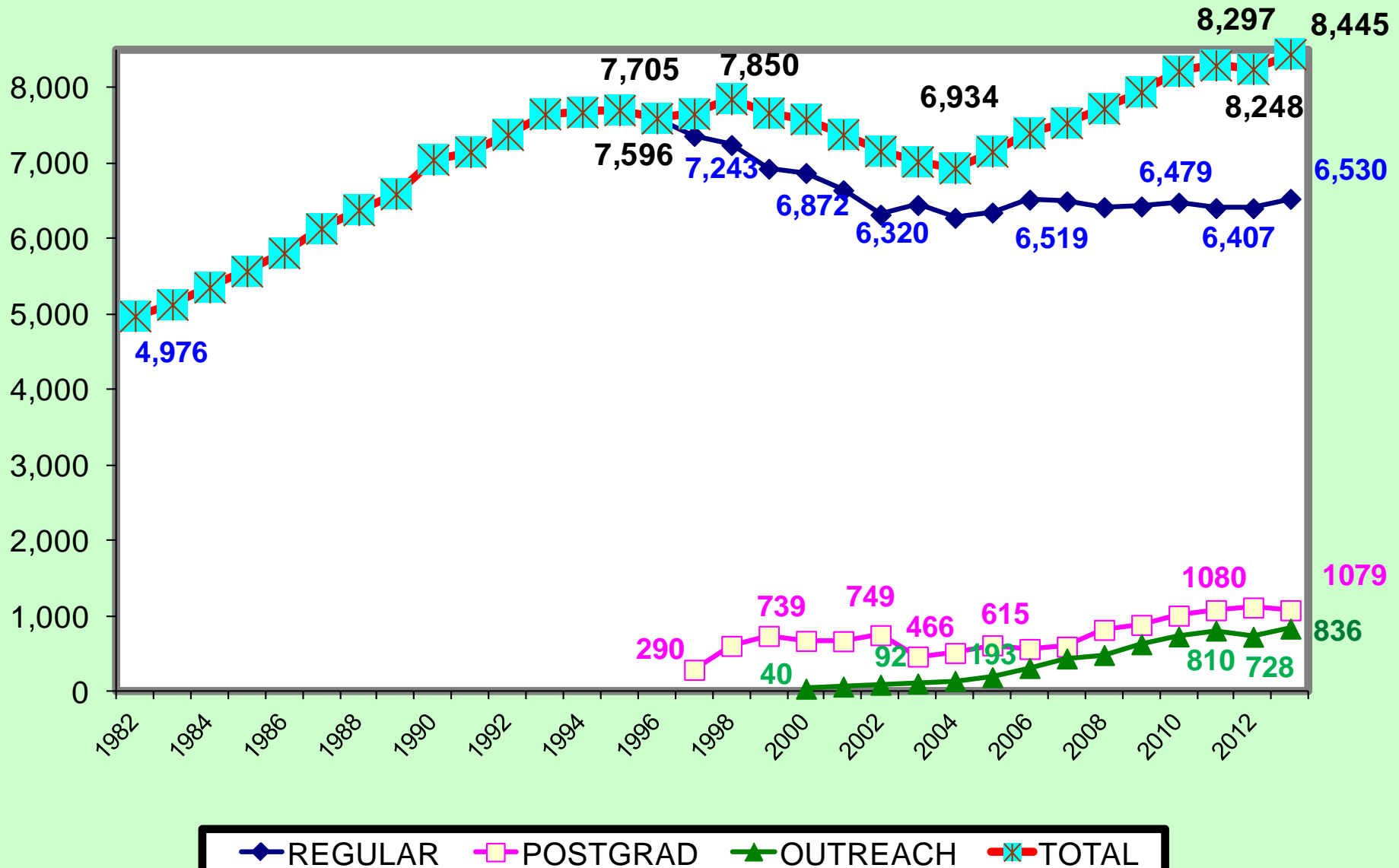
Membership

SIAM MEMBERS 12/31/13

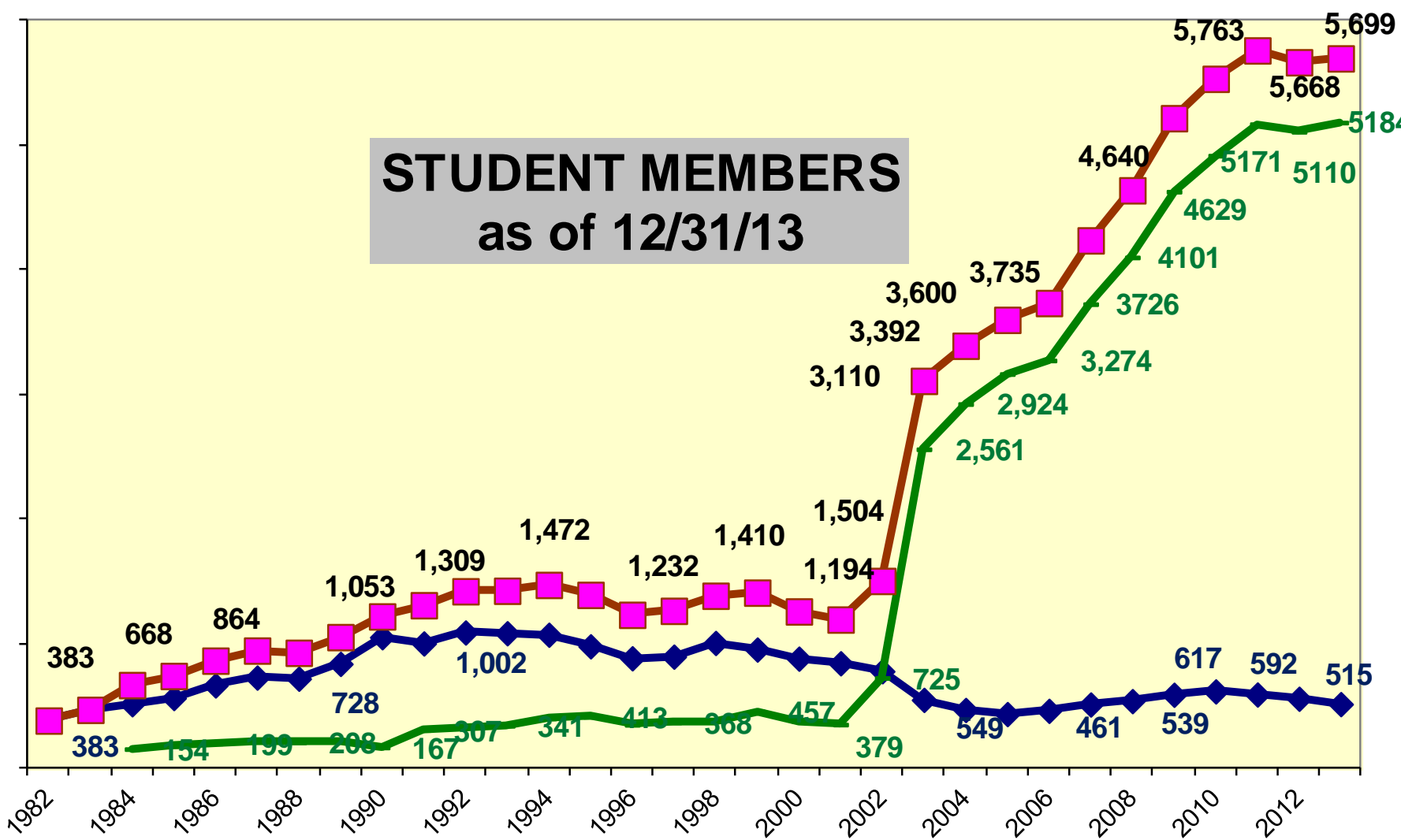
TOTAL: 14,144 – 34% outside USA



MEMBERSHIP EXCLUDING STUDENTS AS OF 12/31/13



STUDENT MEMBERS as of 12/31/13

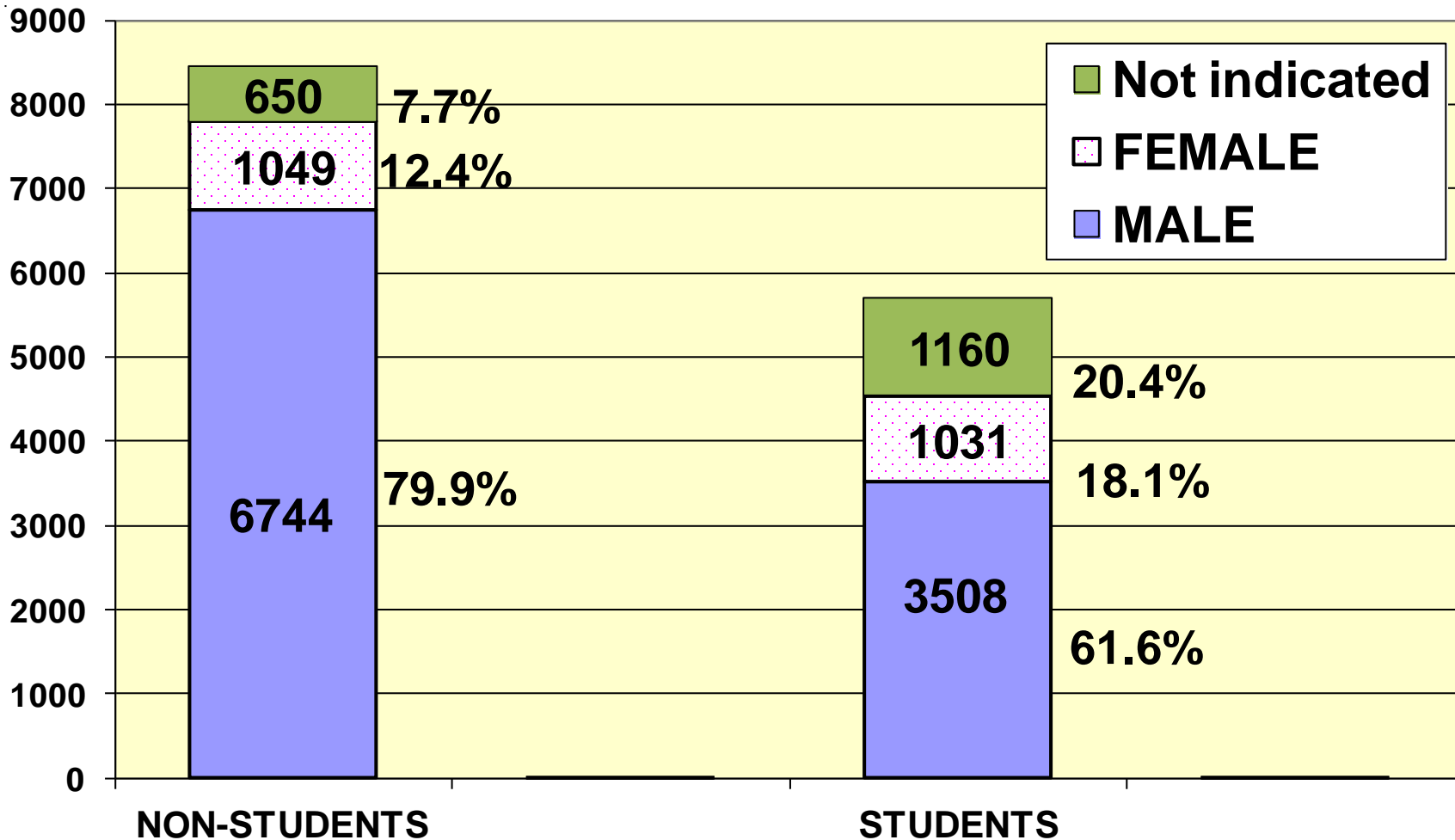


GENDER as of 12/31/13

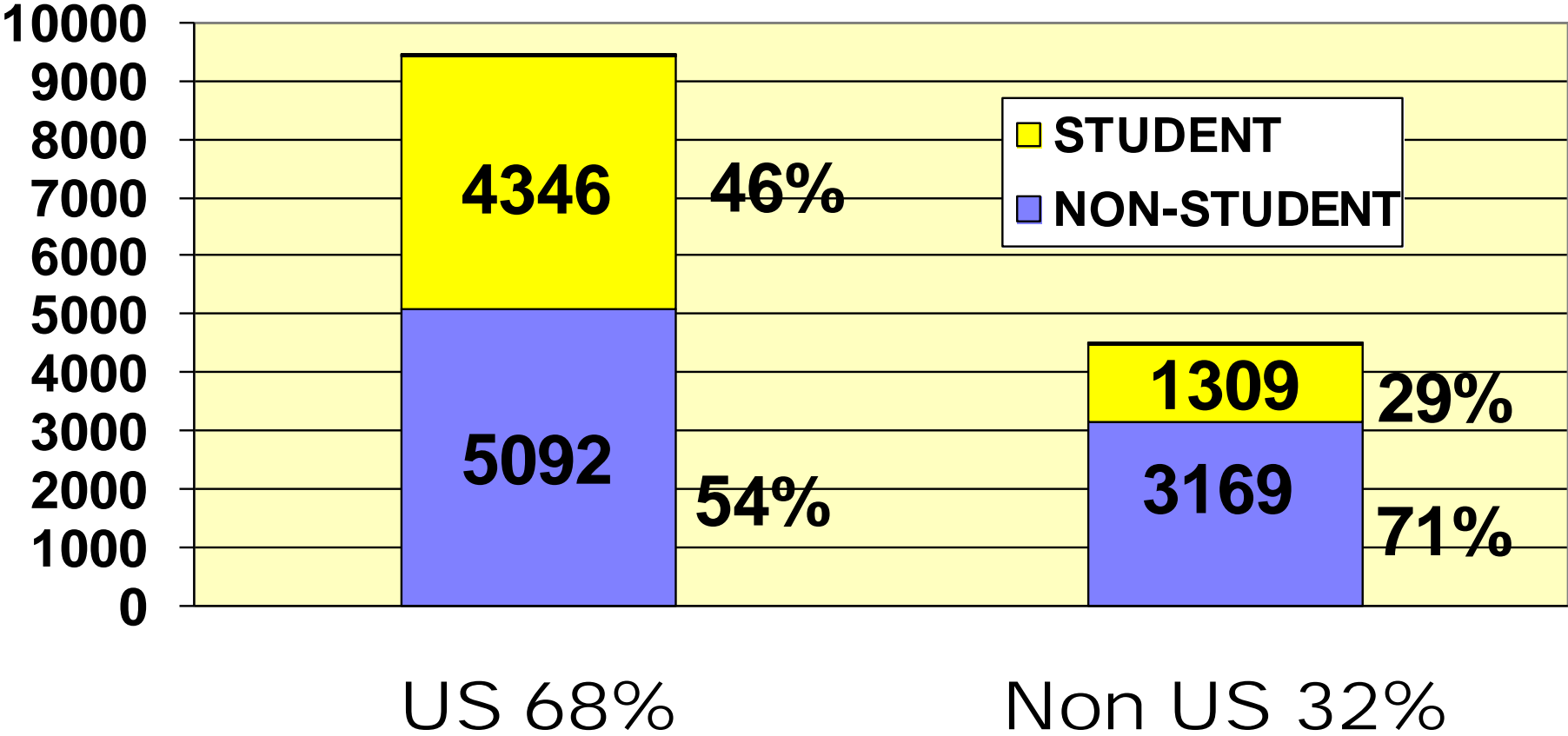
72% male

15% female

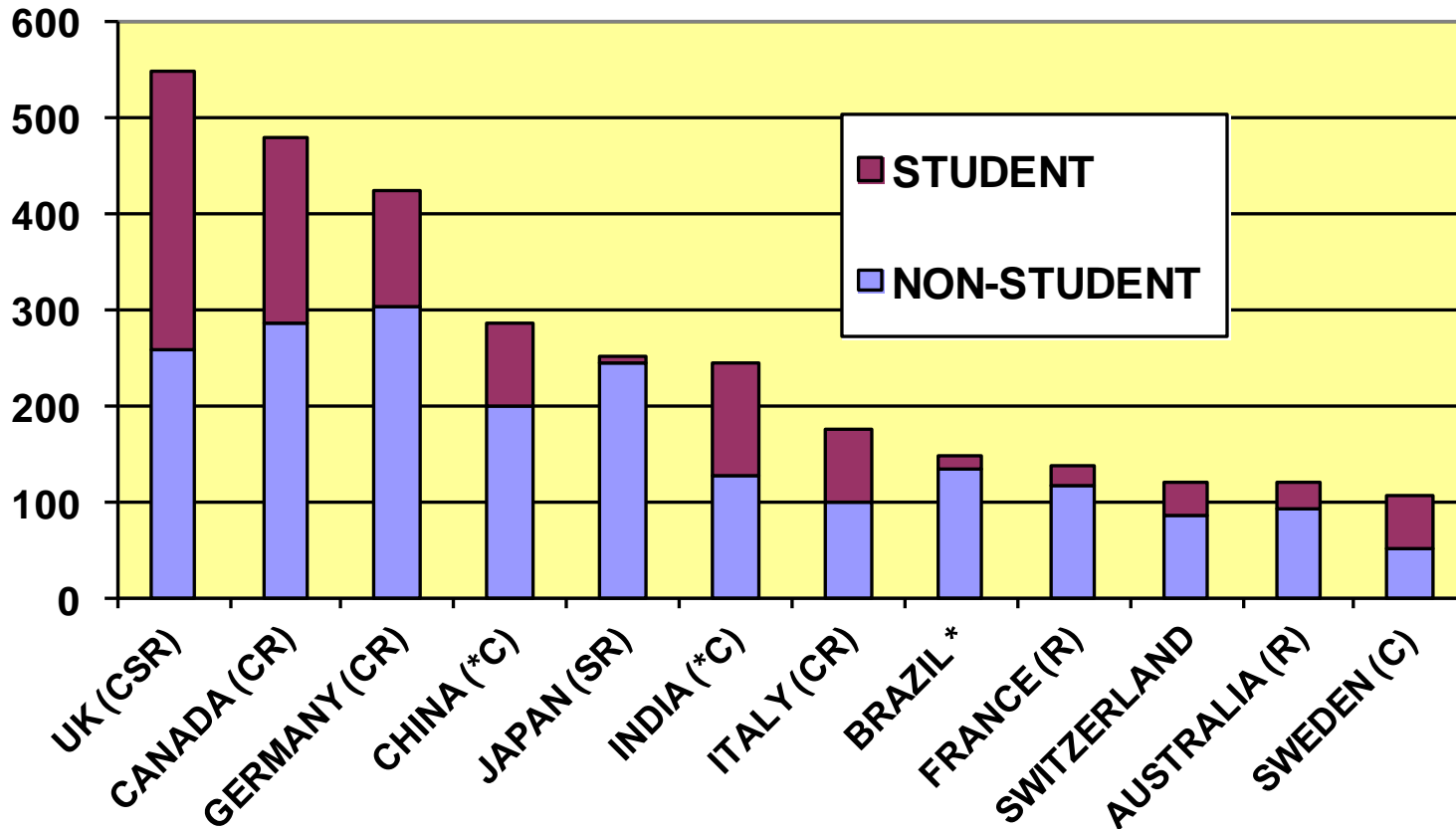
13% not indicated



GEOGRAPHY SIAM MEMBERS



TOP COUNTRIES OF RESIDENCE OF MEMBERS OUTSIDE THE U.S.



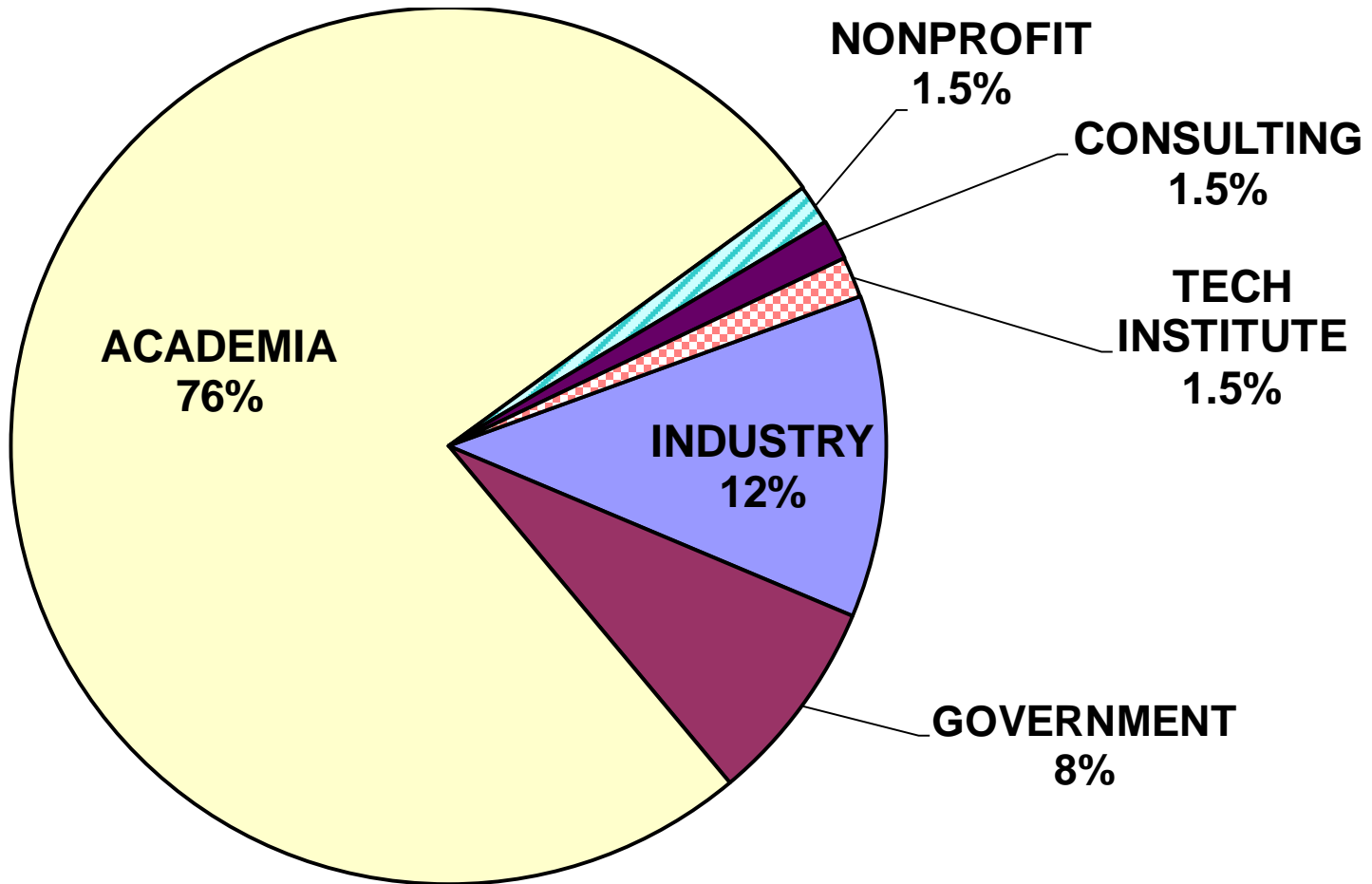
INDICATES * OUTREACH COUNTRY, ^C STUDENT CHAPTER, ^S SECTION, ^R RECIPROCIITY

Reciprocal Societies

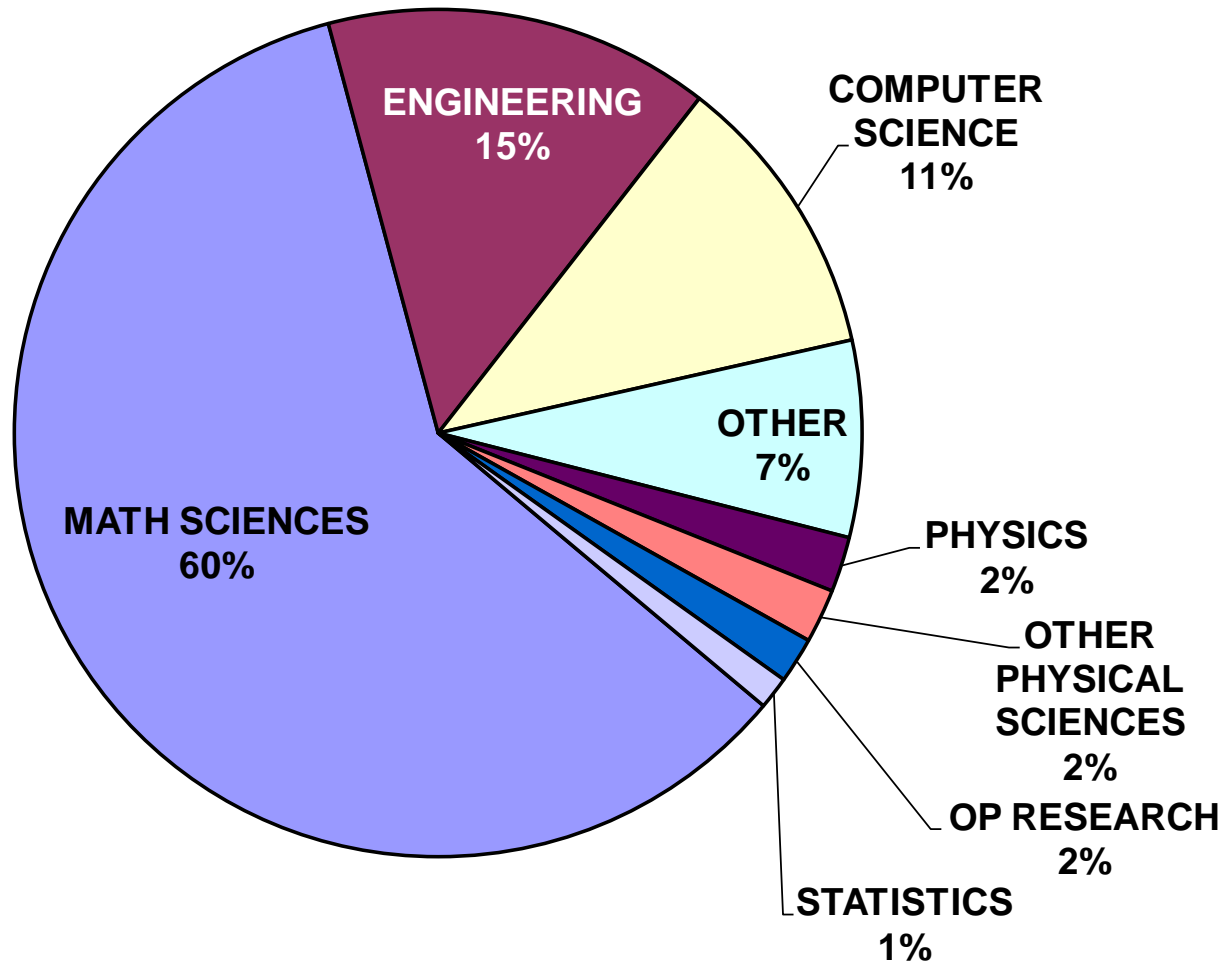
- AustMS Australia
- AWM Worldwide
- CAIMS/SCMAI Canada
- EMS Scotland
- GAMM Germany
- IMA UK
- IMU Israel
- JSIAM Japan
- KWG The Netherlands
- SEMA Spain
- SIMAI Italy
- SMAI France

EMPLOYER TYPE

NONSTUDENT MEMBERS ONLY



SIAM DEPARTMENTS



SIAM SECTIONS (geographic)

- The Great Lakes Section (GLSIAM)
- SIAM Southeastern Atlantic Section (SIAM-SEAS)
- Washington-Baltimore Section

- Argentinean Section (AR-SIAM)
- Bulgaria Section (BGSIAM)
- Colombia (COSIAM)
- East Asia Section (EASIAM)
- United Kingdom and Republic of Ireland Section (UKIE SIAM)

124 SIAM STUDENT CHAPTERS (28 outside US)



SIAM STUDENT CHAPTERS

- **FUNDING** – 81 chapters awarded \$39,042 to support 2013-2014 activities
- **INTERACTION** – Students representing over 60 chapters will meet with SIAM leadership at AN14

ACTIVITY GROUPS – THE HEART OF SIAM

- Now 19 Activity Groups (SIAGs)
- Most recent additions:
 - UQ (Uncertainty Quantification) -- 2011
 - DMA (Data Mining and Analytics) -- 2012

ACTIVITY GROUPS – THE HEART OF SIAM

[Algebraic Geometry](#)

[Computational Science and Engineering](#)

[Data Mining and Analytics](#)

[Dynamical Systems](#)

[Geometric Design](#)

[Imaging Science](#)

[Linear Algebra](#)

[Nonlinear Waves and Coherent Structures](#)

[Orthog. Polynomials & Special Functions](#)

[Uncertainty Quantification](#)

[Analysis of Partial Differential Equations](#)

[Control and Systems Theory](#)

[Discrete Mathematics](#)

[Financial Mathematics and Engineering](#)

[Geosciences](#)

[Life Sciences](#)

[Mathematical Aspects of Materials Science](#)

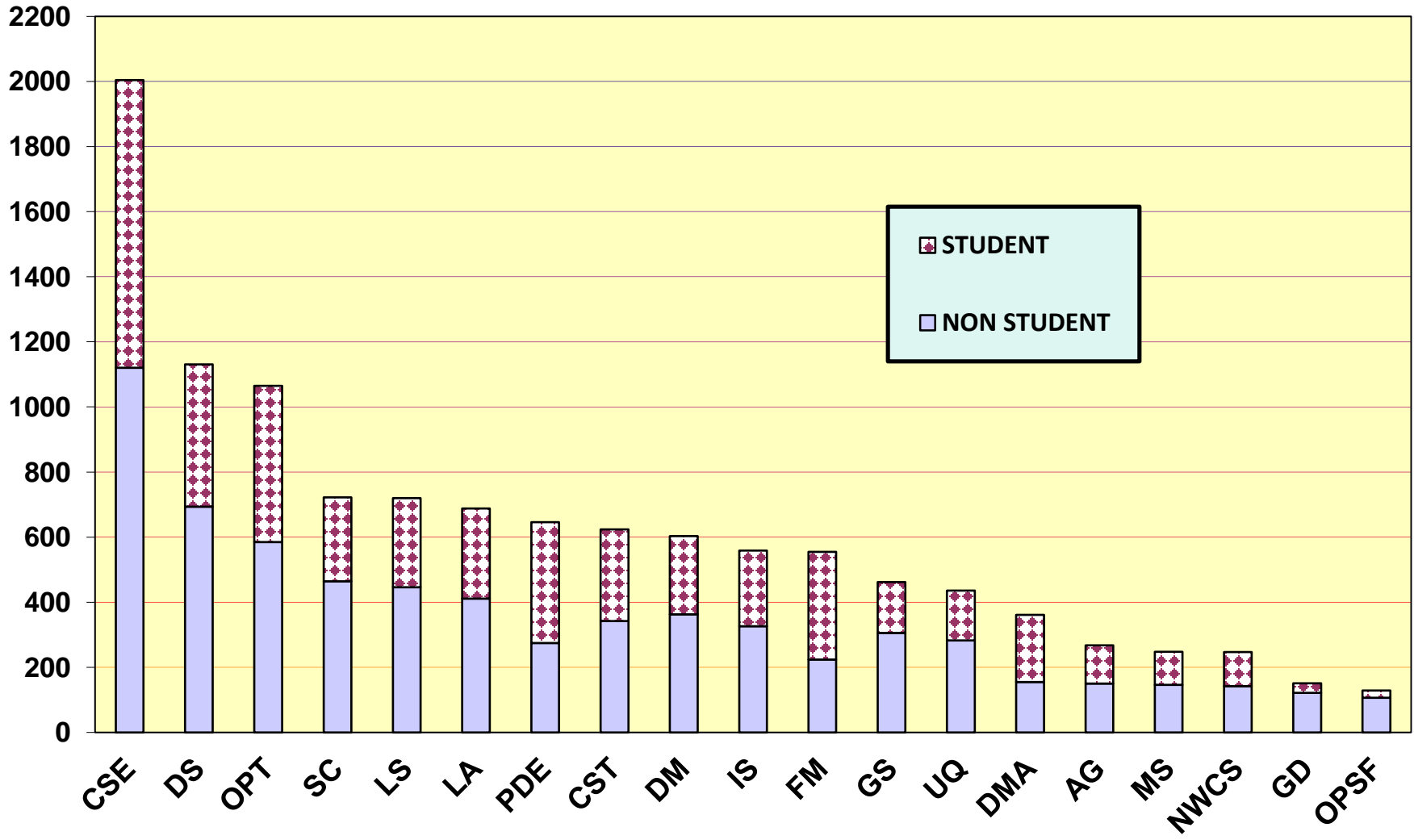
[Optimization](#)

[Supercomputing](#)

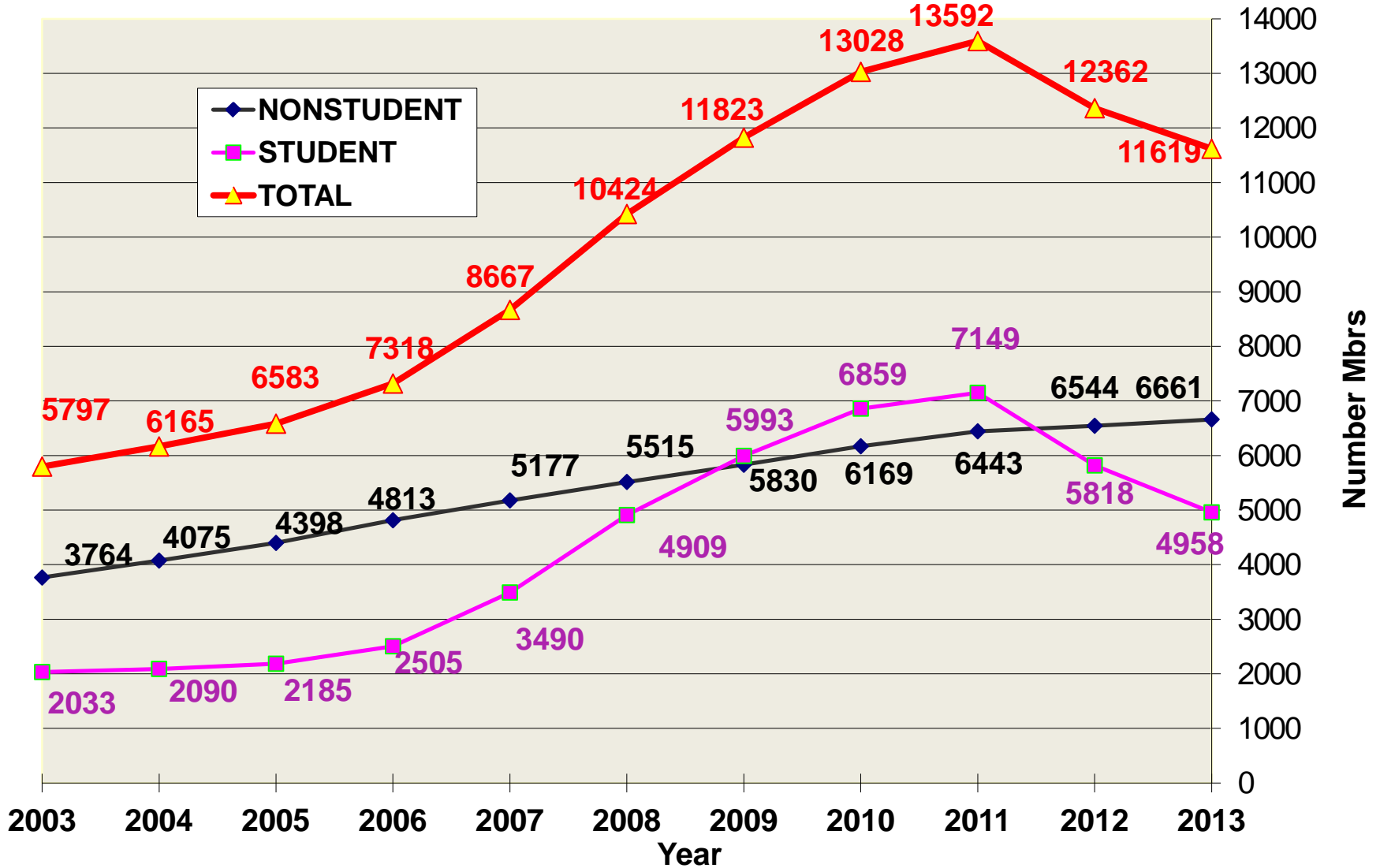
- Most recent additions:
 - UQ (Uncertainty Quantification) -- 2011
 - DMA (Data Mining and Analytics) -- 2012

11,619 SIAM ACTIVITY GROUP MEMBERSHIPS as of 12/31/2013

57% Nonstudents , 43% Students



SIAG Membership History



SIAM Fellows

- A total of 362 SIAM Fellows since the inception of the program in 2009.
- 32 new SIAM Fellows elected in 2014.

- Mark Ainsworth
- John S. Baras
- Lorenz T. Biegler
- Åke Björck
- Alfred M. Bruckstein
- Suncica Canic
- Inderjit S. Dhillon
- Vladimir L. Druskin
- Leah Edelstein-Keshet
- Donald J. Estep
- Bengt Fornberg
- Omar Ghattas
- Philip E. Gill
- Solomon W. Golomb
- Jan S. Hesthaven
- Dorit S. Hochbaum
- Masakazu Kojima
- Jeffrey C. Lagarias
- Jean B. Lasserre
- Tai-Ping Liu
- Mitchell B. Luskin
- Nancy K. Nichols
- Peter J. Olver
- Yuriko Y. Renardy
- L. Ridgway Scott
- Mikhail Shashkov
- Christine A. Shoemaker
- Valeria Simoncini
- Zdenek Strakos
- Bernd Sturmfels
- Jorge X. Velasco-Hernandez
- Michael S. Vogelius

SIAM Major Awards



Do you know someone who has made a significant impact in the fields of applied mathematics or computational science?

The SIAM prize program provides you with an opportunity to recognize deserving people in your field by nominating them for a SIAM prize. SIAM values a diverse set of participants in all its activities and seeks diversity among prize nominees.

SIAM offers many different kinds of prizes. Some commend lifetime contributions and others acknowledge notable research by early career scientists or students.

Prizes are intended to distinguish individuals for outstanding contributions. And while many of the prizes carry monetary awards, it is the recognition by the mathematical sciences community for both the awardees and their institutions that matters most.



Nominate a deserving individual now for one of the SIAM prizes listed below.

CALL FOR NOMINATIONS: 2015 SIAM Prizes and Awards

SIAM seeks nominations for the following important prizes, which will be awarded, except where noted, at SIAM's awards ceremony at ICIAM 2015, August 10-14, in Beijing, China. All awards include reimbursement of travel expenses to the meeting where they are presented.

The John von Neumann Lecture

SIAM's flagship prize is awarded for outstanding and distinguished contributions to the field of applied mathematical sciences and for the effective communication of these ideas to the community. The 2015 recipient will join the list of most distinguished John von Neumann Lecturers. SIAM welcomes your suggestions. This prize has a \$5,000 cash award.

AWM/SIAM Sonia Kovalevsky Lecture

Awarded jointly by AWM and SIAM to anyone in the scientific and engineering communities whose work highlights the achievements of women in applied and computational mathematics. The Association for Women in Mathematics (AWM) welcomes nominations.

Peter Henrici Prize

Awarded jointly by ETH Zurich and SIAM, the prize recognizes original contributions to applied analysis and numerical analysis and/or for exposition appropriate for applied mathematics and scientific computing. The prize is intended to recognize broad and extended contributions to these subjects, more than a single outstanding work. This prize has a \$5,000 cash award and the recipient is expected to deliver a lecture at the meeting. Nominations are due by May 1, 2014, for this prize.

SIAM Student Paper Prize

Up to three prizes will be awarded to the student authors of the most outstanding papers submitted. The prizes recognize outstanding scholarship by students in applied mathematics or computing and are based solely on the merit and content of the student's contribution. This prize has a \$1,000 cash award per student author. Recipients will be announced in August and will be invited to present their papers at the 2016 SIAM Annual Meeting (AN16) in Boston, MA. Submissions are due February 15, 2015.

George Pólya Prize for Mathematical Exposition

New!

Awarded to an outstanding expositor of the mathematical sciences for a specific work or for the cumulative impact of multiple expository works. The work may range from popular accounts of mathematics and mathematical discovery to pedagogy to systematic organization of mathematical knowledge. The prize was created in 2013 to bring greater emphasis to George Pólya's legacy of communicating mathematics effectively. The prize has a cash award of \$10,000.

Ralph E. Kleinman Prize

Awarded to one individual for outstanding research (or other contributions) that bridges the gap between mathematics and applications. Work that uses high-level mathematics and/or invents new mathematical tools to solve applied problems from engineering, science, and technology is particularly appropriate. The prize may be given either for a single notable achievement or for a collection of such achievements. This prize has a \$5,000 cash award.

W. T. and Idalia Reid Prize

The Reid Prize is awarded for research in, or other contributions to, the areas of differential equations and control theory, broadly defined. SIAM welcomes nominations for a single notable achievement or a collection of such achievements. The recipient is requested to deliver the Reid Prize Lecture. This prize has a \$10,000 cash award. The prize will be awarded at the SIAM Conference on Control and Its Applications (CT15) in July 2015.

George Birkhoff Prize

Awarded at Joint Math Meetings (JMM) jointly by SIAM and AMS for an outstanding contribution to applied mathematics in the highest and broadest sense. The prize has a \$5,000 cash award. Nominations should be sent to the AMS by June 30.

SIAM/ACM Prize in CS&E

Awarded in the area of computational science in recognition of outstanding contributions to the development and use of mathematical and computational tools and methods for the solution of science and engineering problems. The prize is intended to recognize either one individual or a group of individuals. The contribution(s) for which the award is made must be publicly available and may belong to any aspect of computational science in its broadest sense. This prize has a \$5,000 cash award. The prize will be awarded jointly by SIAM and ACM at the SIAM Conference on Computational Science and Engineering (CSE15) in February 2015. Nominations are due by June 1, 2014, for this prize.

Germund Dahlquist Prize

Awarded to an early-career researcher for original contributions to fields associated with Germund Dahlquist, especially the numerical solution of differential equations and numerical methods for scientific computing. This prize has a \$1,000 cash award. The prize will be awarded at SciCADE 2015 in September 2015. The recipient is expected to deliver a lecture at the meeting.

George B. Dantzig Prize and Lagrange Prize in Continuous Optimization

Awarded jointly by MOS and SIAM, the Dantzig Prize for original research having a major impact on mathematical optimization and the Lagrange Prize for outstanding works in continuous optimization. A cash award comes with each prize. MOS welcomes nominations. Both prizes will be awarded at ISMP 2015 in July 2015.

Nominations are due fall 2014, except where noted. For more information or to submit a nomination, visit: www.siam.org/prizes/nominations.php



Society for Industrial and Applied Mathematics

3600 Market Street, 6th Floor, Philadelphia, PA 19104-2688 USA Phone: +1-215-382-9800 Fax: +1-215-386-7999 Email: prizes@siam.org www.siam.org

SIAM Prizes

- Your inputs are needed, especially women, industry,...
- See <http://www.siam.org/prizes/nominations.php> for open calls
- John von Neumann, Kleinman, Polya, Reid, Kovalevsky, and Dahlquist prizes are all open for nominations.

SIAM Conferences and Workshops

SIAM Conferences

- 2013 was a successful year for SIAM conferences with about 5,000 attendees at eleven SIAM conferences.
 - Does not include in Geosciences in Padova, Italy run by local group with SIAM support.
- Increasing trend towards conferences outside U.S.
 - NLWCS in Cambridge (U.K.) and Imaging in Hong Kong in 2014

Conferences

Other items of note:

- ICIAM 2015 in Beijing August 10-14
 - SIAM will not hold its Annual Meeting that year
 - ICIAM 2015 open for minisymposium submissions
 - SIAM offer will administer grant from NSF for limited travel support to ICIAM 2015 from U.S.
 - Applications will be accepted starting Sept 2014.

Student Travel Fund

- \$100,000 allocated by SIAM Board in 2013; increased to \$200,000 in 2014
- Funded 143 students in 2013 with SIAM Student Travel Funds (including donations)
- Additional 33 students funded through support from the NSF.

We thank SIAM members and book authors for their generous donations!

SIAM Publications

SIAM Publications

- The SIAM Journal on Uncertainty Quantification (UQ) was launched in 2013
- Supplementary Materials approved and launched by several SIAM journals

SIAM Journals Online

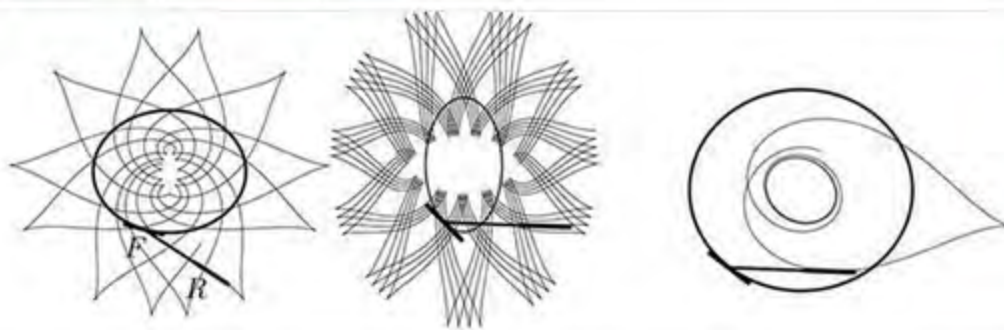


SIAM Publications

- Revised journal publication agreements
 - More specific about authors rights to post
- An “Open option” for SIAM journal authors.
- “Take Five” – five free downloads of SIAM journal articles for SIAM members.

SIAM News

- New Editorial Board launched in 2012
 - Han Kaper, EIC
- Articles now available online when issue is mailed
 - New online format in the works
 - See <http://sinews.siam.org/> for a sample.



"Bike Tracks," Quasi-magnetic Forces, and the Schrödinger Equation

By Mark Levi

In an invited talk at the 2013 SIAM Conference on Applications of Dynamical Systems, Mark Levi described a recently discovered connection between two distinct objects—the stationary Schrödinger equation and “bicycle tracks.” A request from *SIAM News* for an article based on the talk elicited the following well-illustrated article.

[Read full article...](#)



Super-sized Study Groups with Industry

By Chris Brewster, John Ockendon

Marking a milestone for industrial mathematics, the University of Oxford staged the 100th European Study Group with Industry during the week of April 7–11. This “Super-Sized Study Group” saw 200 participants attack ten problems of economic or social importance to the presenters....

[Read full article...](#)



Simons Foundation Creates Center in Data Science

Data science is a hot field. New institutes have been created at Berkeley, Columbia, NYU, Stanford, and



Behind the Scenes of ICIAM

Near the beginning of her two-year term as SIAM president (2013–14), Irene Fonseca identified two top priorities: internationalization and industry. These are precisely the two



Conferences & Events

July 06, 2014 to July 07, 2014

SIAM Workshop on Network Science (NS14)

July 06, 2014

SIAM Workshop on Elasscale Applied Mathematics Challenges and Opportunities (EX14)

July 06, 2014 to July 10, 2014

NSF-CBMS Regional Research Conference on Higher Representation Theory

[See All Upcoming Events](#)

INSIDE SIAM

Volume 47, Number 5, June 2014

UPCOMING SIAM EVENTS

July 06, 2014

SIAM Workshop on Elasscale Applied Mathematics Challenges and Opportunities (EX14)

July 06, 2014 to July 07, 2014

SIAM Workshop on Network Science (NS14)

July 21, 2014 to July 23, 2014

SIAM Workshop on Combinatorial Scientific Computing (CSC14)

[See All SIAM Events](#)

UPCOMING SIAM DEADLINES

SIAM Conference on the Life Sciences (LS14)
Deadline: 7/7/2014

SIAM Conference on Nonlinear Waves and Coherent Structures (NWF14)
Deadline: 8/14/2014

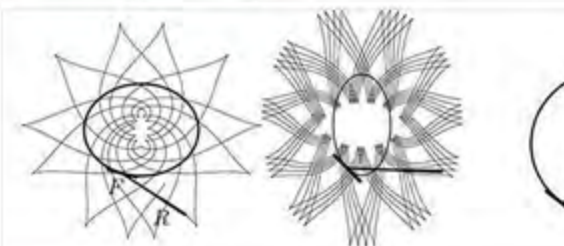
SIAM Workshop on Combinatorial Scientific Computing (CSC14)
Deadline: 7/23/2014

[See All Upcoming Deadlines](#)

siam news

Volume 47, Number 5, June 2014

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[Read full article...](#)



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[Read full article...](#)



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Data science is a hot field. New institutes have been created at Berkeley, Columbia, MIT, Stanford, and



Behind the Scenes

Meet the beginning president (2013) priorities, internationalization and

Other SIAM Media

Other **siam** Media

- *SIAM Connects* (<http://connect.siam.org/>)
- Audio recording of conference talks



– <http://www.siam.org/meetings/presents.php>

- SIAM Blogs: <http://blogs.siam.org/>



SIAM Connects

Timely News...

- Dear SIAM members, Have you registered for the SIAM Annual Meeting yet? *Today* is the last day to pre-register! Do so now: <https://www.siam.org/meetings/an14/regform.php>
- The [June](#) issue of SIAM News is now available online.
- [SIAM Unwrapped May 27, 2014](#)
May 27, 2014
SIAM Unwrapped – May 27, 2014
News & announcements for the SIAM membership community
Download a [PDF version](#)

SIAM Connects II

...Plus Digest of information from SIAM sources:

Putting a number on opinion dynamics in a population

May 22, 2014

How math helps us analyze information distribution and assimilation

- Philadelphia, PA—Opinion formation in a large population is influenced by both endogenous factors, such as interaction with one's peers—in-person and via social media—as well as exogenous factors, such as the media, of which mainstream media is one of the most influential factors. For example, according to a study conducted by the National Bureau of Economic Research in 2006, after the introduction and expansion of Fox News in the United States between 1996 and 2000, an estimated 3-28% of the audience was persuaded to vote Republican.
- In a recent [paper published](#) in the *SIAM Journal of Applied Dynamical Systems*, authors Anahita Mirtabatabaei, Peng Jia, and Francesco Bullo use a mathematical model to study the process of information assimilation in a population resulting from such exogenous inputs. [Read the rest of this entry »](#)
- Posted in [All News](#), [News](#), [SIAM Nuggets](#) | Comments Closed

SIAM Blogs

<http://blogs.siam.org/>

Recent Posts

[Optimizing healthcare](#)

[SIAM-UKIE New Media to Help Increase Impact of Members' Activities in the Wider Community](#)

[Register Now for the SIAM Conference on Nonlinear Waves and Coherent Structures](#)

[Thinking Outside Academia](#)

[Student Days at SIAM Annual Meeting](#)



SIAM Presents

- **Featured Lectures from our Archives**
- [2014 Conference on Optimization](#)
[2014 Conference on Uncertainty Quantification](#)
[2014 Conference on Parallel Processing for Scientific Computing](#)
[2013 Conference on Analysis of Partial Differential Equations](#)
[2013 SIAM Annual Meeting](#)
[2013 Conference on Control and Its Applications](#)
[2013 Conference on Mathematical Aspects of Materials Science](#)
[2013 Conference on Applications of Dynamical Systems](#)
[2013 Fourteenth International Conference on Numerical Combustion](#)
[2013 Conference on Computational Science and Engineering](#)
- **Video**
- [2013 Annual Meeting video clips](#)
Watch brief videos on the math of utility costs, traffic jams, conservation decisions, social networks & more.
[SIAM CSE 13 video clips](#)
Watch videos on mathematical modeling of the human heart, robotics in astronomy, and the influence of big data on science and technology.
[2012 Annual Meeting video clips](#)
Watch brief video overviews of the math behind movie special effects, LCD screens, conservation laws, image processing & more
[ICIAM 2011 video clips](#)
Watch videos on math modeling in oil spill cleanups, disease dynamics, image analysis, animal interactions & much more
[2010 Annual Meeting video clips](#)
Clips include insights into the role of math in music, green buildings & clinical trials, and tips on seeking careers & research funding

Other Items of Interest

Committee on Science Policy (CSP)

- New chair in 2013 is David Levermore
- CSP meets twice in a year in DC
 - Meets with agency representatives
 - Goes to Capitol Hill to talk to Congressional committees, staff.
- Letters on issues important to SIAM
- Sign up for science policy mailing list at http://www.siam.org/about/science/sci_policy_form.php

Elections

- Nominating Committee choosing slate for fall elections. Candidates:
 - Board: Bill Coughran, Sequoia Capital; Russ Caflisch, UCLA and IPAM; Rene Carmona, Princeton; *Katherine Brenan, Aerospace Corp.; *Mary Ann Horn, Vanderbilt and NSF; *Tammy Kolda, Sandia NL
 - Council: Ray Chan, University of Hong Kong; Omar Ghattas, UT Austin; Jeff McFadden, NIST; Validimir Durskin, Schlumberger-Doll; Padma Raghavan, Penn State; Ronnie Sircar, Princeton; Hongkai Zhao, UC Irvine; *Rachel Kuske, Univ. of British Columbia

Appointments

- Committee on Committees and Appointments (Secretary Simon Tavener, chair) filling dozens of committee appointments.

Other Items – Reports

From the Education Committee:

- INGenIOuS – NSF-sponsored workshop on workforce issues (AMS, ASA, MAA, SIAM).
- Modeling Across the Curriculum
 - SIAM workshop and report (2013) and (2014)
- [Undergraduate Degree Programs in Applied Mathematics](#) (2014)

And from Industry Committee:

- SIAM Math in Industry report (2012)

See <http://www.siam.org/reports/>

Other Items -- Collaborations

- SIAM Welcomes Collaborations with Other Societies; e.g.
 - SMAI on Industry
 - ECMI on industrial mathematics

Some new items

- Job Fair at CS&E2015 (Salt Lake City)
- Job Board
 - Seeking ways to improve relevant non-academic job listings.
- SIF (SIAM Interagency Forum)
 - First to bring agencies together to discuss big data and the role of the math/computational sciences.