

#SIAMCSE19

2019 SIAG/CSE BUSINESS MEETING



2019 SIAG/CSE

Computational Science and Engineering

Business Meeting

Thanks to Tim Fest, Jim Crowley, and Richard Moore, SIAM, for stats, info and slides!

Wednesday, February 27, 2019

7:00pm-8:00 pm Ballroom 100 BC Spokane Convention Center

SIAG/CSE Officers 2019-2020

Chair:

Karen Devine ж Vice Chair: Suzanne Shontz * **Program Director**: Stefan Wild * **Secretary**: Judith Hill



SIAG/CSE Thank you to the 2017/18 Officers

Chair:

Hans De Sterck * Vice Chair: Lorena Barba * **Program Director**: Suzanne Shontz * **Secretary**: Karen Devine



SIAG/CSE Thank you to 2019 Conference Committee

Conference Co-chairs

Jeffrey Hittinger, Lawrence Livermore National Laboratory, USA Luke Olson, University of Illinois at Urbana-Champaign, USA Suzanne Shontz, University of Kansas, USA

Organizing Committee

Katherine J. Evans, Oak Ridge National Laboratory, USA
Hans Johansen, Lawrence Berkeley National Laboratory, USA
Matthew G. Knepley, University at Buffalo, USA
Tamara G. Kolda, Sandia National Laboratories, USA
Alison Marsden, Stanford University, USA
Marie E. Rognes, Simula Research Laboratory, Norway
Robert Scheichl, University of Heidelberg, Germany
Andrea Walther, Paderborn University, Germany
Stefan Wild, Argonne National Laboratory, USA
Rebecca Willett, University of Chicago, USA
Rio Yokota, Tokyo Institute of Technology, Japan

Society for Industrial and Applied Mathematics

SIAG/CSE Congratulations to SIAM Fellows

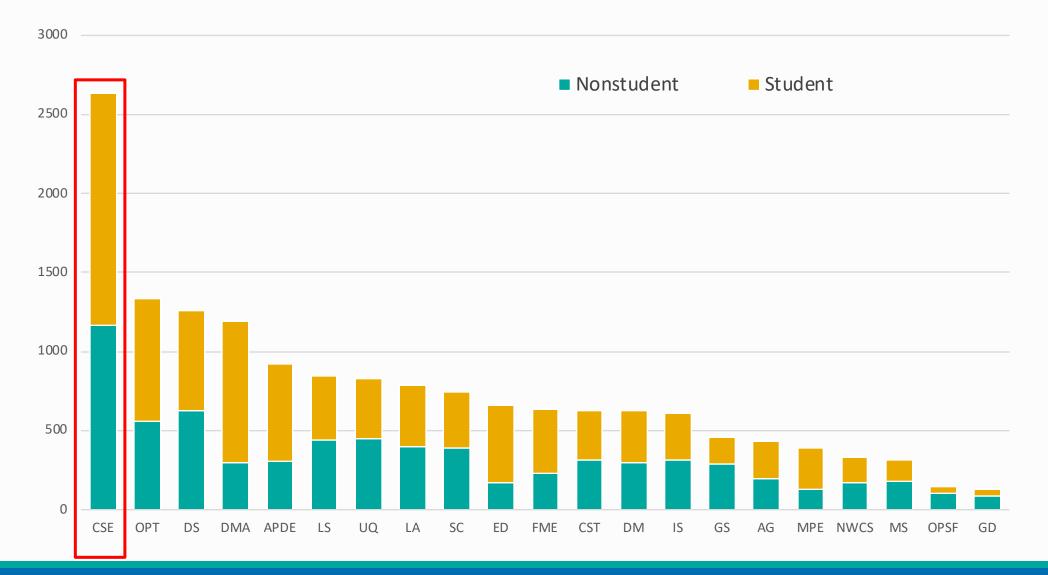
Class of 2017

Class of 2018

Zhaojun Bai	Todd Arbogast	John Shadid			
Peter Benner	Liliana Borcea	Ralph Smith			
Lois McInnes	Margot Gerritsen	Tamas Terlaky			
Michael Kwok-Po Ng	Madhav Marathe	Panayot Vassilevski			
Carol Woodward	Alison Marsden	Homer Walker			
	Helen Moore	Karen Willcox			
	Pablo Parrilo				
	Alex Pothen				

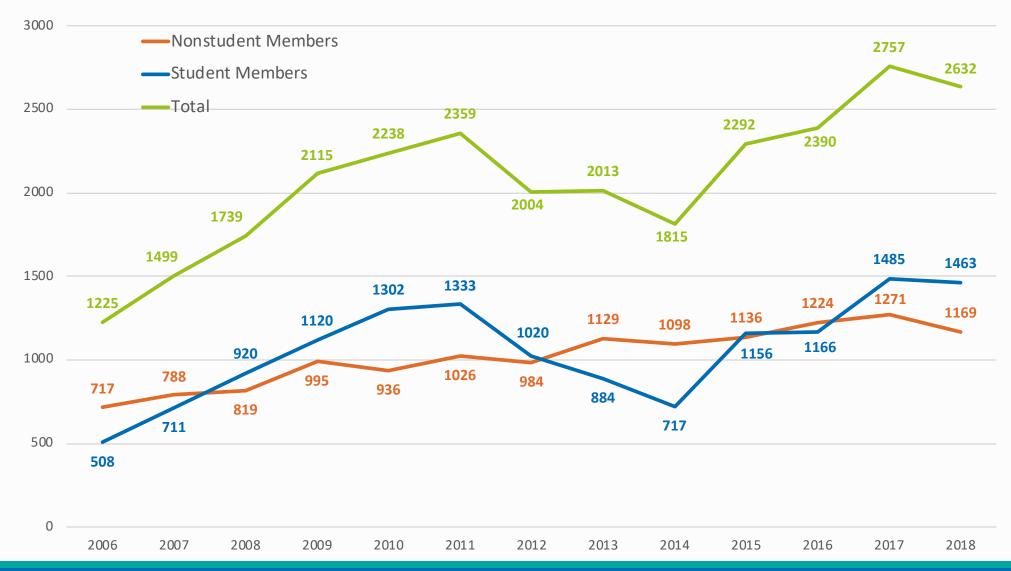


SIAG Overall Membership



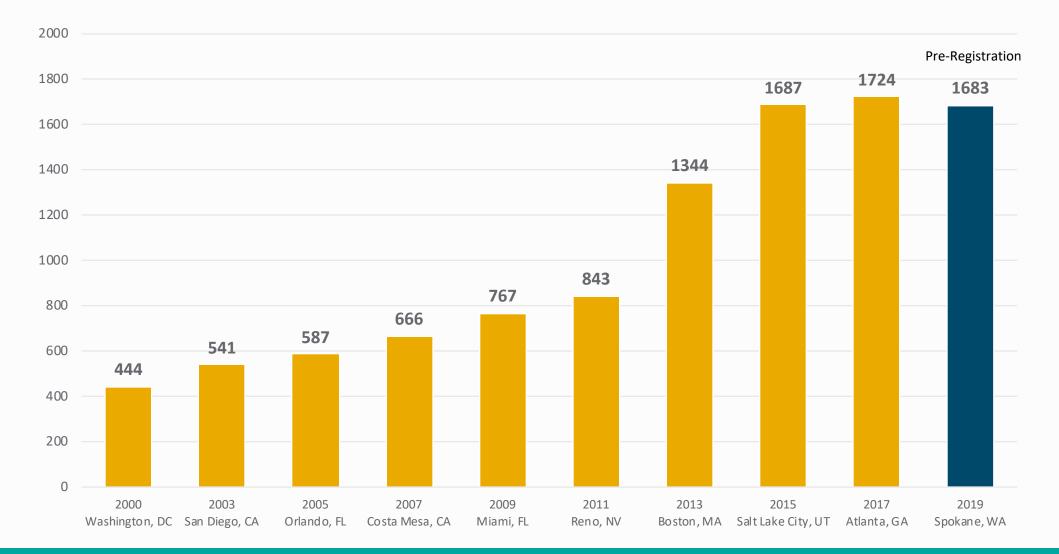
SIZIA Society for Industrial and Applied Mathematics

SIAG/CSE Membership Demographics





SIAG/CSE Conference History



SIZUR, Society for Industrial and Applied Mathematics

SIAG/CSE Conference 2019

SIAM/ACM Prize in Computational Science and Engineering

The Singular Value Decomposition: Anatomy of an Algorithm, Optimizing for Performance **Jack Dongarra**, University of Tennessee, Knoxville, U.S.

James H. Wilkinson Prize for Numerical Software

Solving the Two Language Problem in Scientific Computing and Machine Learning with Julia Jeffrey Bezanson, Stefan Karpinski, and Viral Shah, Julia Computing, Inc., U.S.

SIAG/CSE Early Career Prize

Data-Driven Discovery and Control of Complex Systems: Uncovering Interpretable and Generalizable Nonlinear Models

Steven Brunton, University of Washington, U.S.



SIAG/CSE Conference 2019

Inaugural SIAG/CSE Best Paper Prize

"Scalable and efficient algorithms for the propagation of uncertainty from data through inference to prediction for large-scale problems, with application to flow of the Antarctic ice sheet"

Tobin Isaac, Georgia Institute of Technology, U.S., **Noémi Petra**, University of California, Merced, U.S., **Georg Stadler**, Courant Institute - New York University, U.S., and **Omar Ghattas**, University of Texas at Austin, U.S.

The SIAM Activity Group on Computational Science and Engineering Best Paper Prize (SIAG/CSE Best Paper Prize) is awarded every two years to the author(s) of the best paper, as determined by the prize committee, on the development and use of mathematical and computational tools and methods for solving problems that may arise in broad areas of science, engineering, technology, and society. The prize recognizes a paper that makes an outstanding and potentially long-lasting contribution to the field. The selection criteria emphasize multidisciplinary work opening up new areas of research, and potential broad impact, in addition to novelty, creativity, and overall scientific advancement and quality.

sian

Society for Industrial and Applied Mathematics

SIAG/CSE Thank you to prize selection committee members

Ann Almgren Martin Berzins Geoffrey Fox Sven Hammarling Peter Jimack Randall LeVeque Linda Petzold Christine Shoemaker Katherine Yelick Michael Bader Kathryn Brenan Laura Grigori Michael Heroux David Keyes Jorge Moré Olaf Schenk Ralph Smith



SIAG/CSE Communication

- SIAG/CSE electronic mailing list: <u>siag-cse@siam.org</u>
- SIAG/CSE websites:
 - https://www.siam.org/membership/Activity-

Groups/detail/computational-science-and-engineering

- http://wiki.siam.org/siag-cse/index.php/Main_Page
- SIAM Blogs
- SIAM News: Story Ideas
 - Thank you to past CSE liaison to SIAM News: Paul Constantine
 - Volunteer needed!



ICIAM 2019



The Congress will take place at the 'Campus de Blasco Ibáñez' of the Universitat de València.

SIAM is a member of the International Council for Industrial and Applied Mathematics (ICIAM)

ICIAM 2019 is being organized by SeMA (Sociedad Española de Matemática Aplicada), member of ICIAM.

Special SIAG CSE track organized by Suzanne Shontz: 21 minisymposia on CSE



SIAM Annual Meeting

2019

- No Annual Meeting in 2019
- Supporting 9th International Congress on Industrial and Applied Mathematics (ICIAM 2019)

2020

- Annual Meeting 2020 held jointly with The Annual Meeting of The Canadian Applied and Industrial Mathematics Society (CAIMS
- July 6th-July 10th, 2020
- Toronto, Ontario, Canada
- Call for participation September 2019
- Stefan Wild and Hans de Sterck are organizing

a CSE track; prospective minisymposium

organizers should contact Hans and Stefan.

Gene Golub SIAM Summer School

<u>2019</u> High Performance Data Analytics

June 17th-28th, 2019

Paul Langevin CNRS Conference Center in Aussois, France

2020 Anticipated date between May - August 2020

For questions or informal inquiries, please contact the G2S3 committee chair, Thomas Witelski, witelski@math.duke.edu

<u>2021</u> Anticipated deadline for submission of Letter of Intent January 31st, 2020



Join SIAM Today!

Benefits of SIAM Membership Include......

- SIAM Review (Print & Electronic)
- SIAM News (Print)
- 30% Off SIAM Books
- \$15 / Activity Group Membership
- 20% 30% Off Registrations
- 80% Off Journals (up to 4)
- 95% Off e-Access to Journals
- Spouse may join as Associate Member

- SIAM Unwrapped
- Vote in SIAM Elections
- Eligible to Hold Office
- Eligible for Committee Appointments
- Nominate SIAM Fellows
- Be Nominated as a SIAM Fellow
- Nominate 2 Students for Free Membership
- Eligible for Group Insurance

Future CSE Conferences

SIAM CSE 2021

Program director: Stefan Wild

Location / dates: TBD

Central / Eastern US hub city requested

SIAM CSE 2023

Interested in location outside North America

Need partner in host location

SIAG/CST NEW OFFICER ORIENTATION

SIAG meetings outside of the USA

- Option 1 SIAM handles the financial responsibility and manages the meeting
 - "Destination" company handles local logistics, taxes, regulation compliance, etc.
 - Registration fees will be higher to cover expenses
- Option 2 Local organization takes financial responsibility
 - Conference run by local organizers / volunteers
 - Collect fee, sign contracts, pay invoices & taxes
 - Perhaps partner with local professional society
 - Use SIAM's conference management system
 - Proposals submitted to SIAG Officers & SIAM:
 - Organizers, location, budget, logistics, etc.
 - For CSE23, would like notice of intent by July 2019, and proposal by October 2019
 - Please talk with SIAG officers for more details!

SIAM CSE21 Discussion

PROGRAM DIRECTOR: STEFAN WILD



Other Business





#SIAMCSE19

2019 SIAG/CSE BUSINESS MEETING



Contacts

Chair	Karen Devine	
	kddevin@sandia.gov	
Vice Chair	Suzanne Shontz	
	shontz@ku.edu	
Program Director	Stefan Wild	
	wild@anl.gov	
Secretary	Judith Hill	
	hilljc@ornl.gov	

Help Wanted

- SIAG CSE Liaison to SIAM NEWS
- AN20 CSE track minisymposium organizers
- CSE23 host



2019 SIAG/CSE BUSINESS MEETING

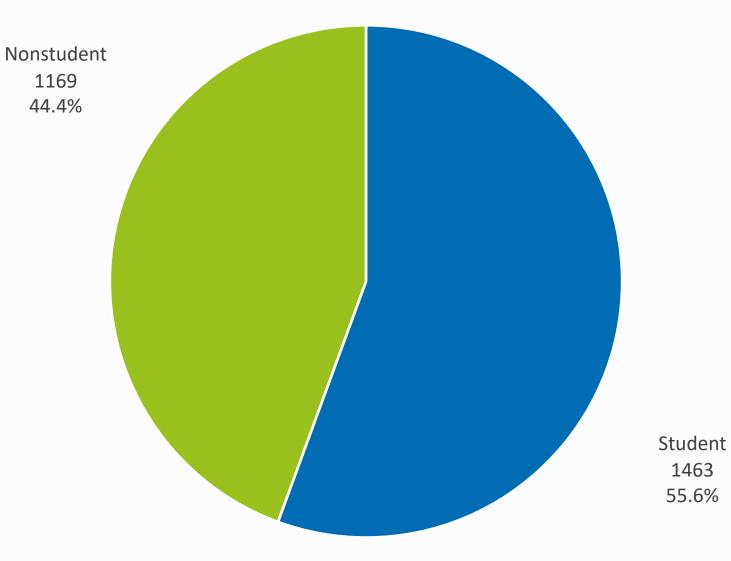


2019 SIAG/CSE

Membership Report

(data as of December 31, 2018)

SIAG/CSE Membership Demographics



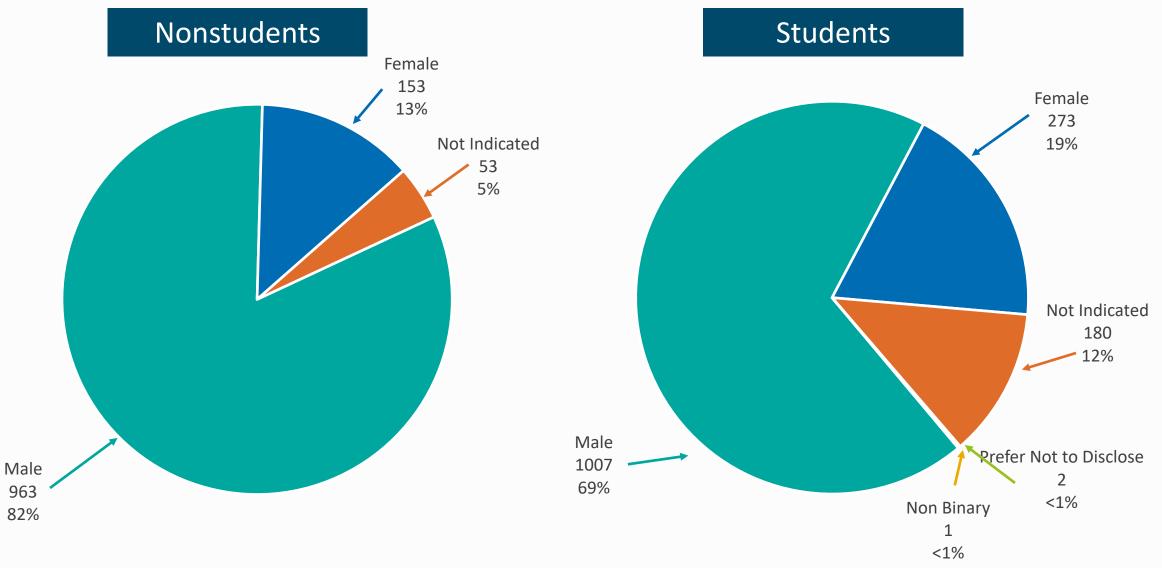


SIAG/CSE Membership by Geography

	Nonstudent		Student		Total	
Domestic	807	31%	1029	39%	1836	70%
Foreign	362	14%	434	16%	796	30%
Total	1169	44%	1463	56%	2632	

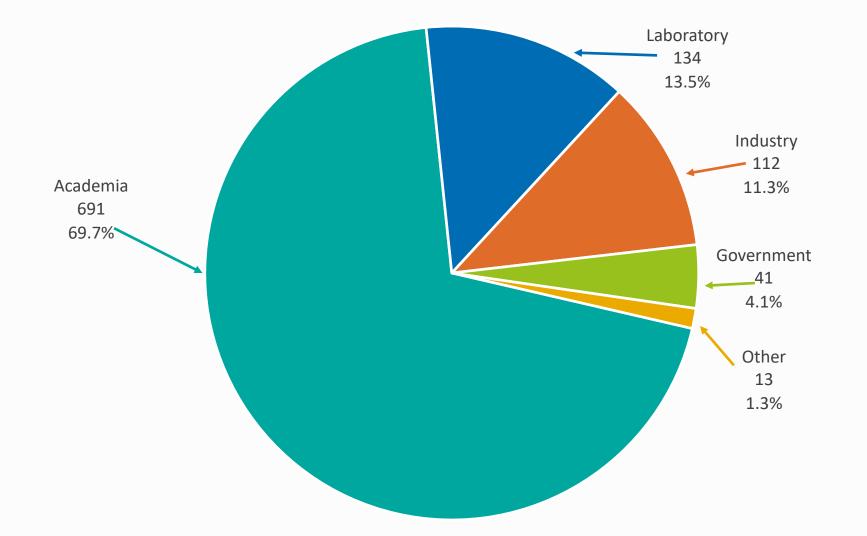


SIAG/CSE Membership by Gender



Society for Industrial and Applied Mathematics

SIAG/CSE Membership by Employer Type



SIGUR, Society for Industrial and Applied Mathematics

SIAG/CSE Membership by Department Type

