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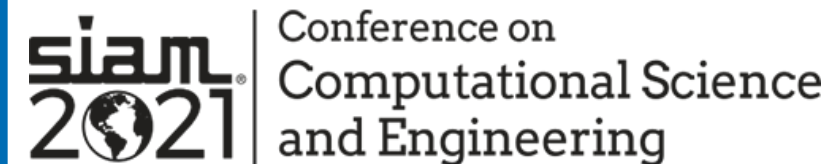
# 2021 SIAG/CSE

SIAM Activity Group on  
Computational Science and  
Engineering

Business Meeting

**Part 1: (this) March 3**

**Part 2: (CSE23) March 4, 9:15AM Central**



2021 SIAG/CSE BUSINESS MEETING

## Chair:

Stefan Wild

\*

## Vice Chair:

Jeff Hammond

\*

## Program Director:

Judith Hill

\*

## Secretary:

Tan Bui-Thanh

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# SIAG/CSE Thank you to all 2019/2020 Officers

## Chair:

Karen Devine

\*

## Vice Chair:

Suzanne Shontz

\*

## Program Director:

Stefan Wild

\*

## Secretary:

Judith Hill

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# SIAG/CSE Conference 2021

## Organizing Committee Co-Chairs

**Laura Grigori**, Inria, France

**Misha E. Kilmer**, Tufts University, U.S.

**Stefan M. Wild**, Argonne National Laboratory, U.S.

\*

## Organizing Committee

**Ann Almgren**, Lawrence Berkeley National Laboratory, U.S.

**Nathan Baker**, Pacific Northwest National Laboratory, U.S.

**Kevin Carlberg**, Facebook, U.S.

**John Gilbert**, University of California, Santa Barbara, U.S.

**Vicki Howle**, Texas Tech University, U.S.

**Tobin Isaac**, Georgia Tech, U.S.

**Kirsten Morris**, University of Waterloo, Canada

**Pat Quillen**, The MathWorks, U.S.

**Adrian Sandu**, Virginia Tech, U.S.

**Peter Tang**, Facebook, U.S.

**Françoise Tisseur**, The University of Manchester, United Kingdom

**Kees Vuik**, Delft University of Technology, Netherlands

**Barbara Wohlmuth**, Technical University of Munich, Germany

**Carol Woodward**, Lawrence Livermore National Laboratory, U.S.

**Rio Yokota**, Tokyo Institute of Technology, Japan

*Thank  
you!*

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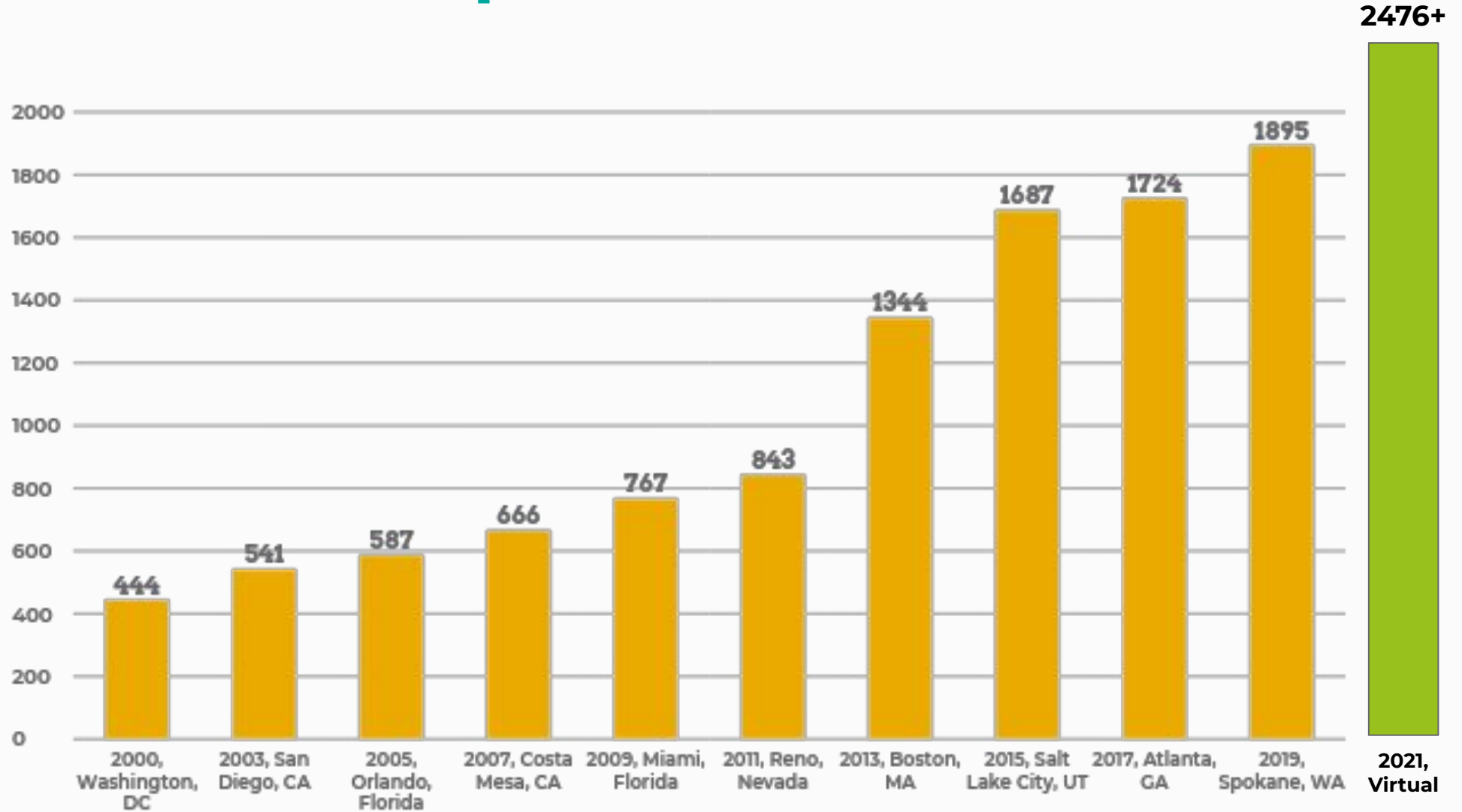
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# SIAG/CSE Conference History

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# SIAG/CSE Conference 2023: Amsterdam!

the 12th CSE conference is the 1st outside of US

## Organizing Committee Co-Chairs

**Karen Devine**, Sandia National Laboratories, U.S.

**Dirk Hartmann**, Siemens AG, Germany

**Wil Schilders**, Technische Universiteit Eindhoven, The Netherlands

**February 26 – March 3, 2023**



**Info Session March 4, 9:15AM Central**

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# SIAG/CSE 2020 Charter Renewal

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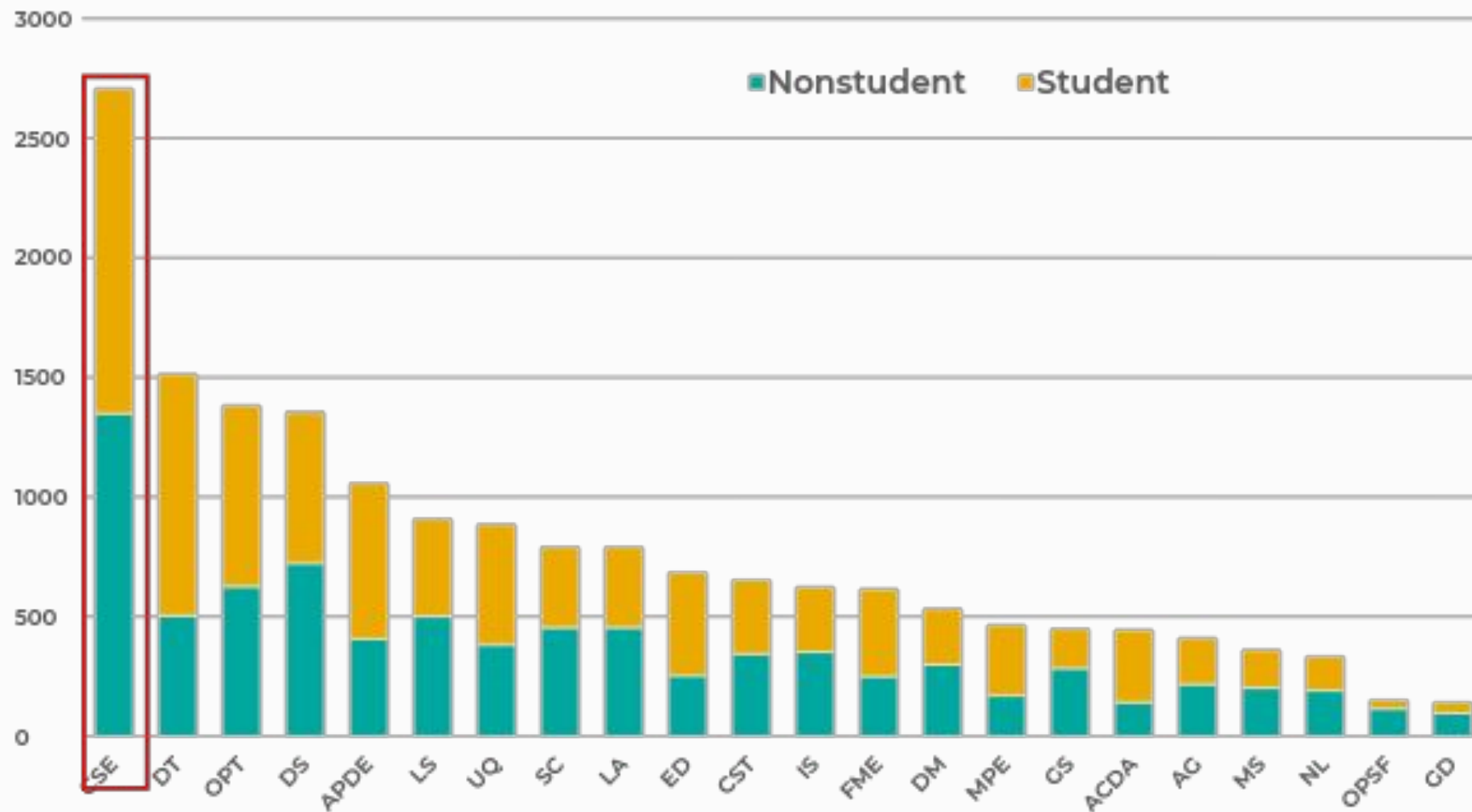
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- Fast forwards planning to facilitate what is now regularly SIAM's largest meeting
- SIAG/CSE year X officers aid planning for year X+2 meeting and siting of year X+4 meeting
- SIAG/CSE Program Director a co-chair of year X+4 meeting
  - Judy Hill will co-chair CSE25

**CSE25 will be in U.S.**

**CSE27?**

# SIAG Overall Membership



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# SIAG/CSE Announcements



- New SIAG/CSE electronic mailing list
  - [siam-cse@connectedcommunity.org](mailto:siam-cse@connectedcommunity.org)
  - **Editable frequency:** digest or instant messages
  - Reply privately or publicly on the website or directly through email
  - Post files and events; searchable SIAG membership database
- SIAG/CSE website
  - <https://www.siam.org/membership/activity-groups/detail/computational-science-and-engineering>
- SIAM News: Story Ideas
- SIAM Blogs
- SIAG/CSE Leadership Suggestion Form:
  - <https://www.siam.org/forms/siam-activity-group-leadership-form>

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# SIAG/CSE Prizes

## SIAG/CSE Early Career Prize

3rd time prize  
awarded

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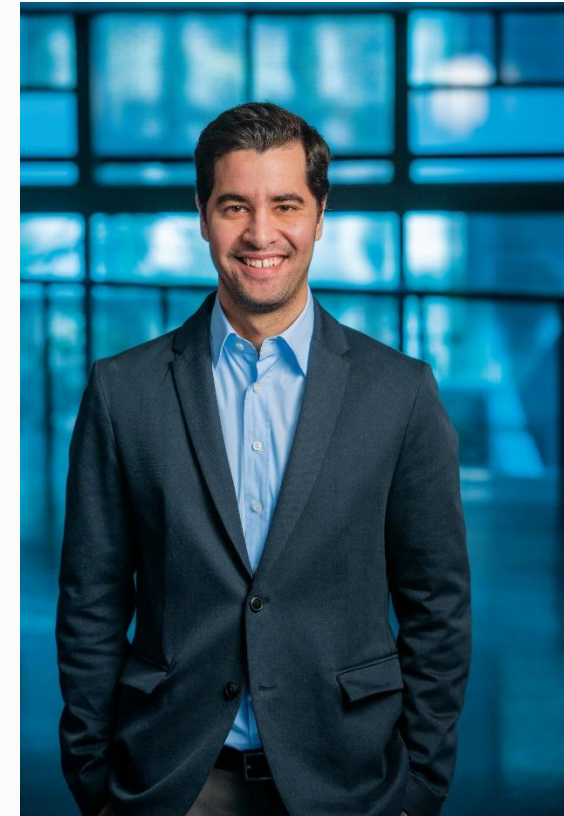


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### Paris Perdikaris

University of Pennsylvania,  
United States

- ▶ “For his work on machine learning using Gaussian processes and neural networks, which has set the foundation for a new paradigm in data-driven and physics-informed scientific computing.”



# SIAG/CSE Prizes

## SIAG/CSE Best Paper Prize

2nd time prize  
awarded

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**Venkataramanan Balakrishnan**  
Purdue University,  
United States



**Stephen Cauley**  
Massachusetts  
General Hospital,  
Harvard University,  
United States



**James Vogel**  
Purdue University,  
United States



**Jianlin Xia**  
Purdue University,  
United States

"Superfast Divide-and-Conquer Method and Perturbation Analysis for Structured Eigenvalue Solutions." SISC 38(3), A1358–A1382. (25 pages)

# SIAG/CSE Prize Lectures at CSE21

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**SIAM Activity Group on  
Computational Science and  
Engineering Early Career Prize**

**SIAM/ACM Prize in  
Computational Science and  
Engineering**

**SIAM Activity Group on  
Computational Science and  
Engineering Best Paper Prize**

**James H. Wilkinson Prize for  
Numerical Analysis and  
Scientific Computing**

**Awards Session Friday March 5 - 12:05 PM Central**

+ poster prizes

+ 8th Bavarian Graduate School in Computational Engineering  
(BGCE) Student Paper Prize

# SIAG/CSE Thank you 2021 CSE Prize Committees

## SIAM/ACM Prize in Computational Science and Engineering

David Keyes (Chair), King Abdullah University of Science & Technology

Robert Schnabel, University of Colorado Boulder

Lois Curfman McInnes, Argonne National Laboratory

## SIAM Activity Group on Computational Science and Engineering Early Career Prize

Judith Hill (Chair), Lawrence Livermore Lab (previously at Oak Ridge National Laboratory)

Hans De Sterck, University of Waterloo

Irene Gamba, University of Texas

Bruce Hendrickson, Lawrence Livermore National Lab

Jan Hesthaven, École Polytechnique Fédérale de Lausanne

## James H. Wilkinson Prize for Numerical Analysis and Scientific Computing

John Stockie (Chair), Simon Fraser University

Aleksandar Donev, Courant Institute of Mathematical Sciences – NYU

Misha Kilmer, Tufts University

## SIAM Activity Group on Computational Science and Engineering Best Paper Prize

Suzanne Shontz (Chair), University of Kansas

Sivasankaran Rajamanickam, Sandia National Laboratories

Christine Shoemaker, National University of Singapore

Ulrich Ruede, Universitaet Erlangen-Nuernberg

Rio Yokota, Tokyo Institute of Technology

## Awards Session Friday March 5 - 12:05 PM Central

+ poster prizes

+ 8th BGCE Student Paper Prize

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# SIAG/CSE SIAM Fellows

## Class of 2020

**Srinivas Aluru**, Georgia Tech, U.S.

**Umit Catalyurek**, Georgia Tech, U.S.

**Laura Grigori**, Inria, France

**Robert Lipton**, Louisiana State University, U.S.

**Olaf Schenk**, Università della Svizzera Italiana, Switzerland

**Jie Shen**, Purdue University, U.S.

**Barbara Wohlmuth**, Technische Universität München, Germany

## Class of 2019

**Mihai Anitescu**, Argonne National Lab, U.S.

**David Bader**, New Jersey Institute of Technology, U.S.

**Fariba Fahroo**, Air Force Research Lab, U.S.

**Roger Ghanem**, University of Southern California, U.S.

**Sigal Gottlieb**, University of Massachusetts, U.S.

**Mike Heroux**, Sandia National Lab, U.S.

**Misha Kilmer**, Tufts University, U.S.

**Juan Meza**, UC Merced, U.S.

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# Future conferences?

Location

Timing

Program committee

**Business Meeting Part 2:  
CSE23 Info Session March 4, 9:15AM Central**



**Time for input and Q&A!**

**Enter #CSE21 at <http://sli.do>  
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CSE23 is in Amsterdam, CSE25 will be in the U.S.; where should CSE27 be located?  
(pick up to 2)

0 4 8

Asia



Europe



Americas, outside of U.S.



U.S.



Oceania







Far too early/maybe all virtual

Join at  
**slido.com**  
**#CSE21**



## Order these desires in a SIAM CSE conference

0 4 5

1. Bring entire community together with shared events (e.g., plenaries)  
 3.07
2. Have all talks (minisymposia & contributed talks) be the same length  
 2.42
3. Keep number of parallel sessions low  
 2.27
4. Allow for 20+ minute talks (25+ w/ Q&A&transition)  
 2.24

Join at  
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**#CSE21**



What is your favorite part of CSE conferences?

0 4 0



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**#CSE21**



## What is missing from CSE conferences?

030

semi-plenary lectures

industry

Industry interaction

Beer

food

coffee

Internationality

longer minisymposium talk

The I in SIAM

talk organization

me

In person coffe breaks

warm weather

wine and chees reception

free coffee

Excuses for gatherings

reception

Conference dinner

Social activities

Incl younger researchers

Time to go to everything

Education

Join at  
**slido.com**  
**#CSE21**



Top questions (3)



 Anonymous

2 

Interdisciplinarity seems to be and should be part of "CSE". However, it often does not really seem to be appreciated. This is also true for SISC submissions.

 Anonymous

1 

Does CSE coordinate with the Parallel Processing meeting as far as whether meetings are foreign or domestic?

 Anonymous

0 

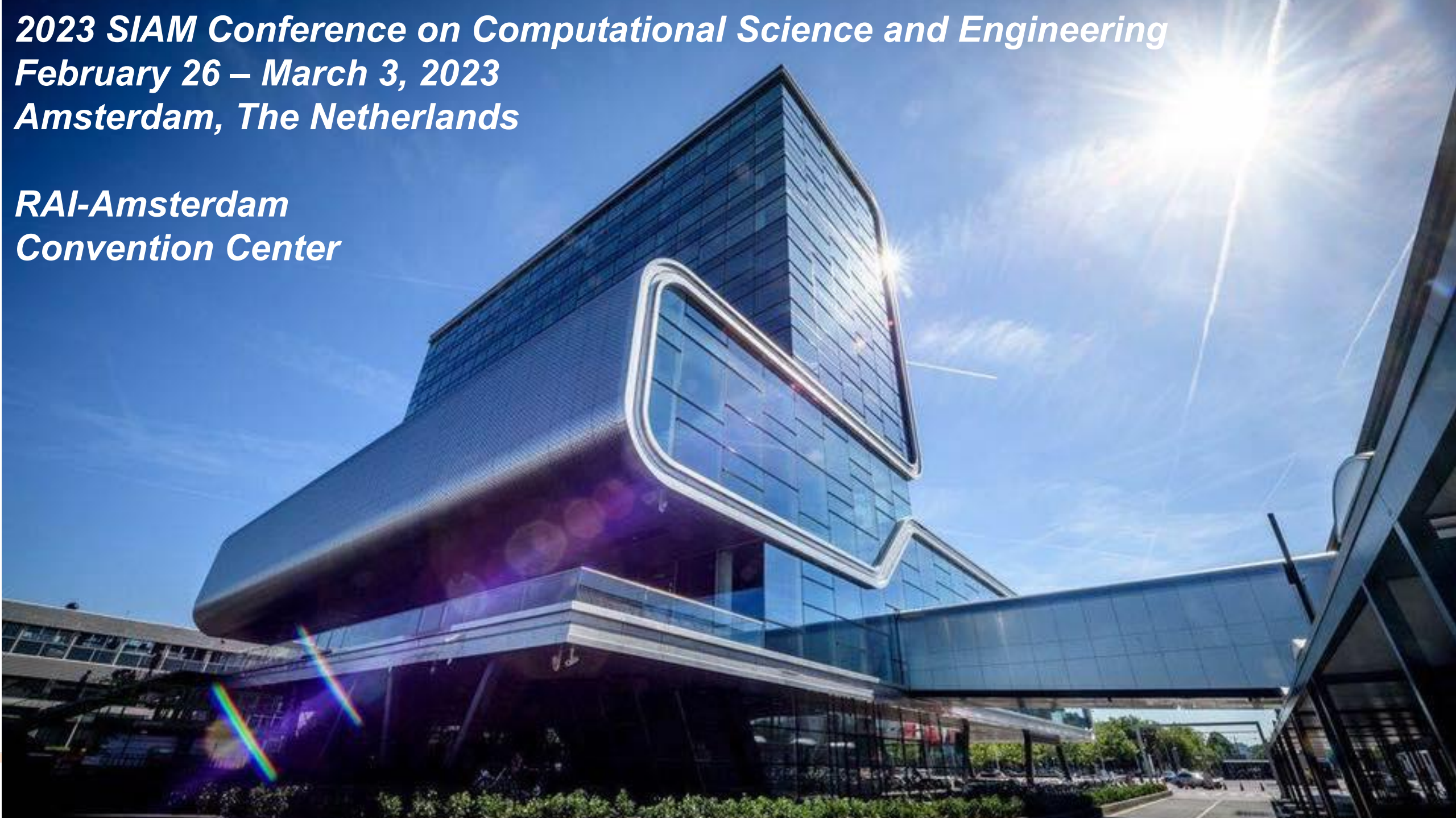
Will you share the lessons learned from this virtual meeting, somehow? What worked well, what didn't etc.?

Join at  
**slido.com**  
**#CSE21**

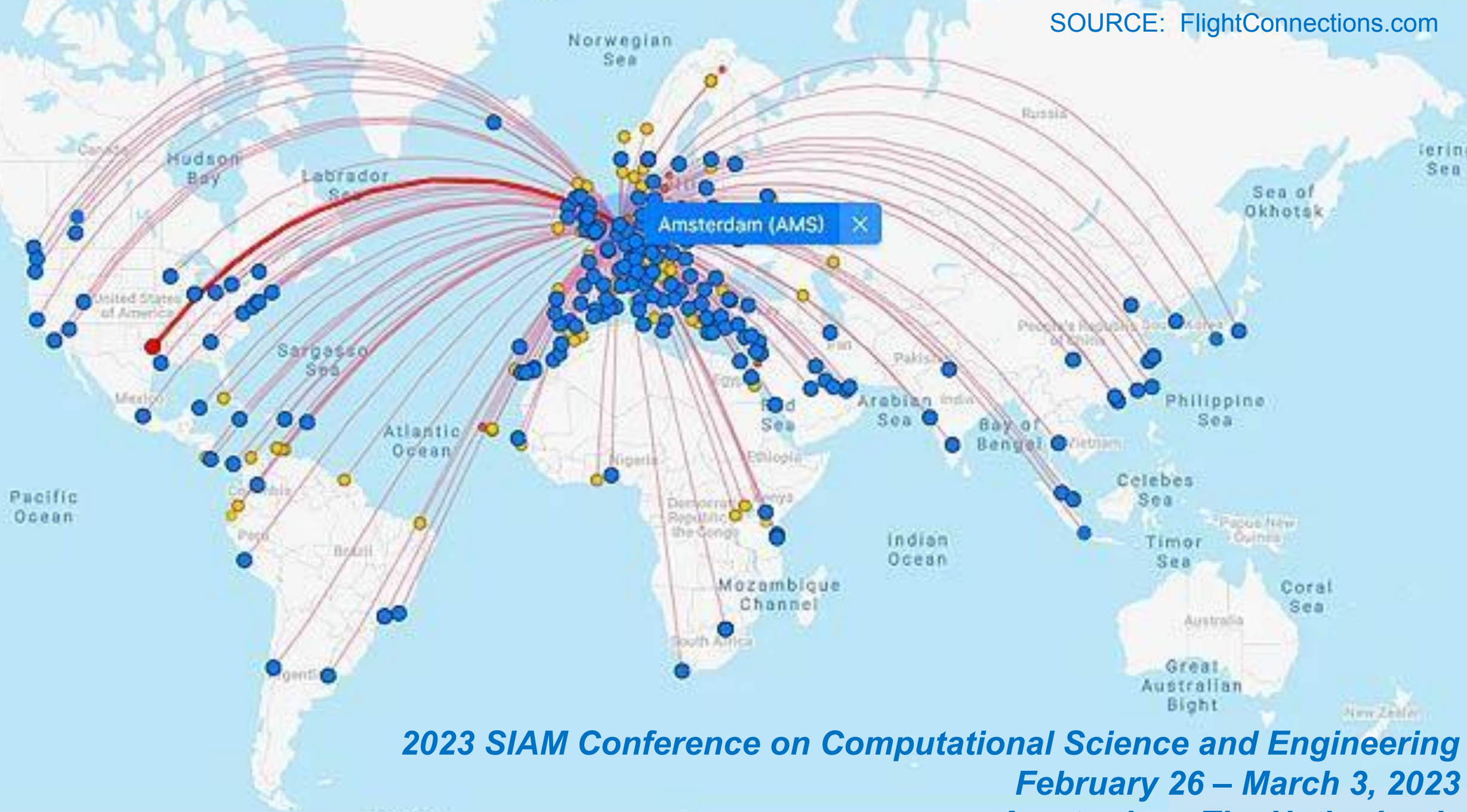


***2023 SIAM Conference on Computational Science and Engineering  
February 26 – March 3, 2023  
Amsterdam, The Netherlands***

***RAI-Amsterdam  
Convention Center***



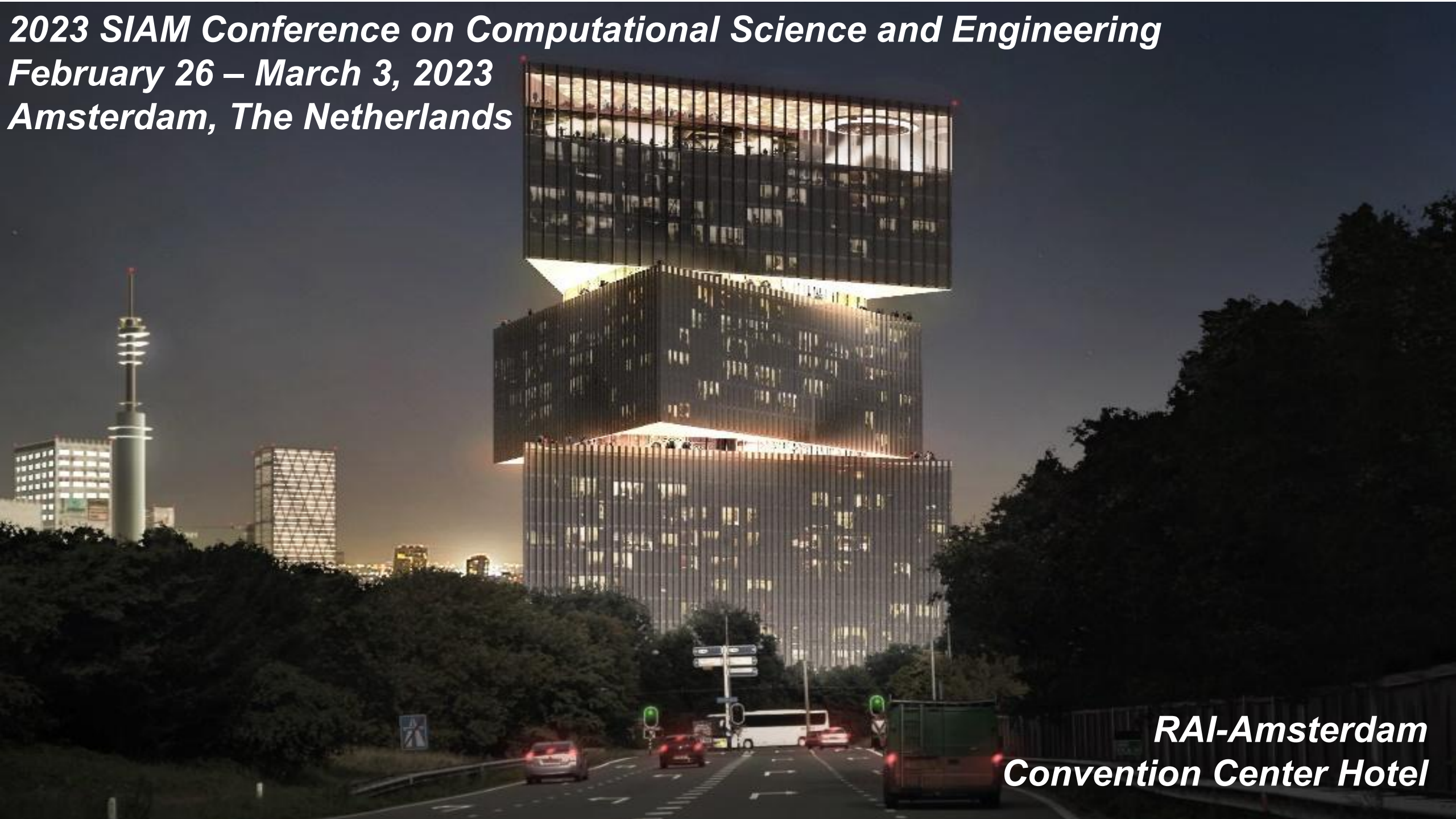




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***2023 SIAM Conference on Computational Science and Engineering  
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Amsterdam, The Netherlands***



***RAI-Amsterdam  
Convention Center Hotel***





*Go beyond presentations ... roundtables, hackathons ...  
Learn from industrial challenges to spur new math  
research  
Share success stories: how mathematics enabled  
industry to excel  
Network among researchers from industry and academia*

**Emphasize the **I** in **SIAM****



**2023 SIAM Conference on  
Computational Science and Engineering  
February 26 – March 3, 2023  
Amsterdam, The Netherlands**



# Contacts

**Chair** Stefan Wild

wild@anl.gov

**Vice Chair** Jeff Hammond

jeff\_hammond@acm.org

**Program Director** Judith Hill

judy@llnl.gov

**Secretary** Tan Bui-Thanh

tanbui@oden.utexas.edu

Viewable asynchronously on CSE21 Platform  
and at SIAG/CSE wiki

# 2020 SIAG/CSE

## Membership Report

*(data as of December 31<sup>st</sup>, 2020)*

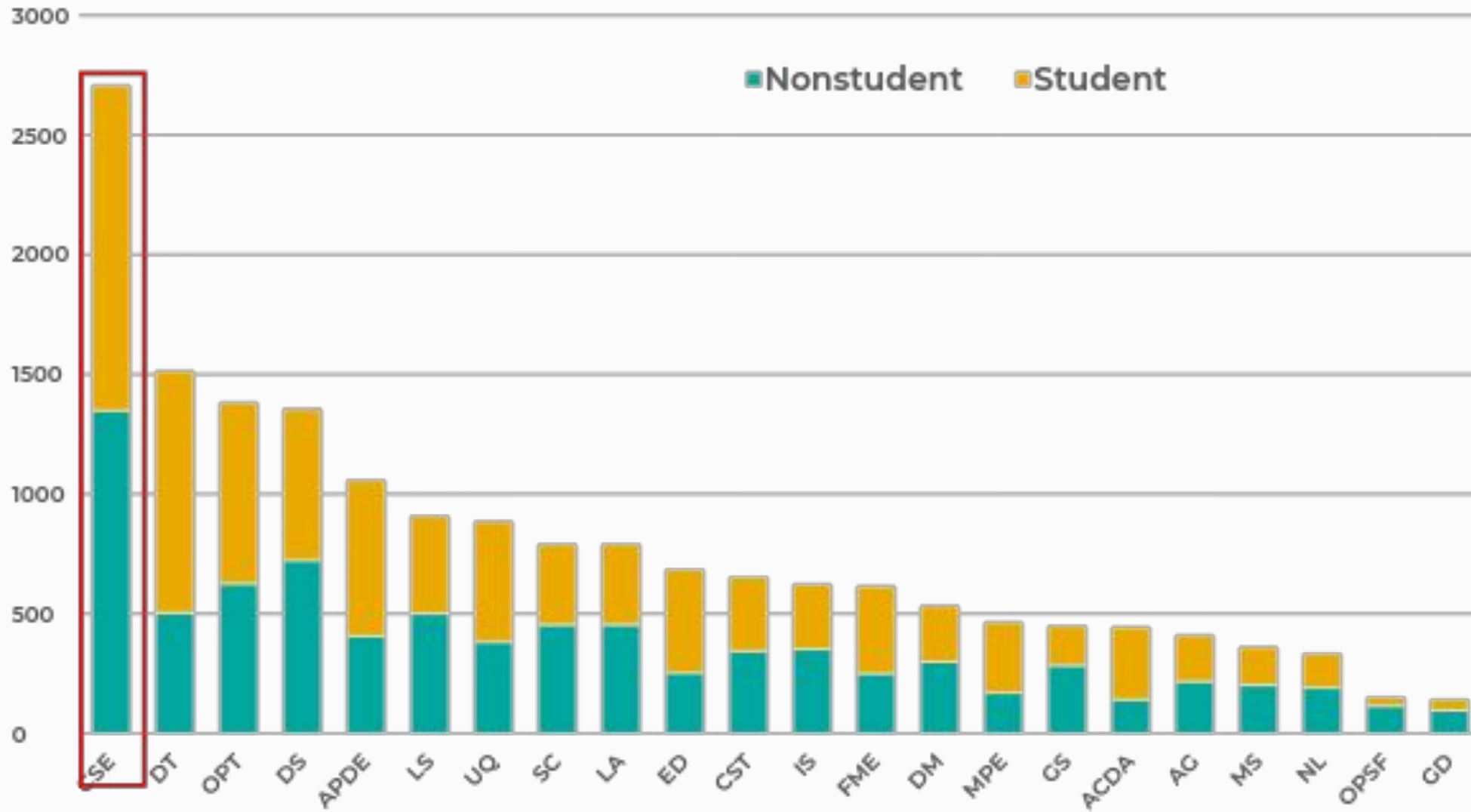
**siam**  
2021 | Conference on  
Computational Science  
and Engineering

2021 SIAG/CSE BUSINESS MEETING

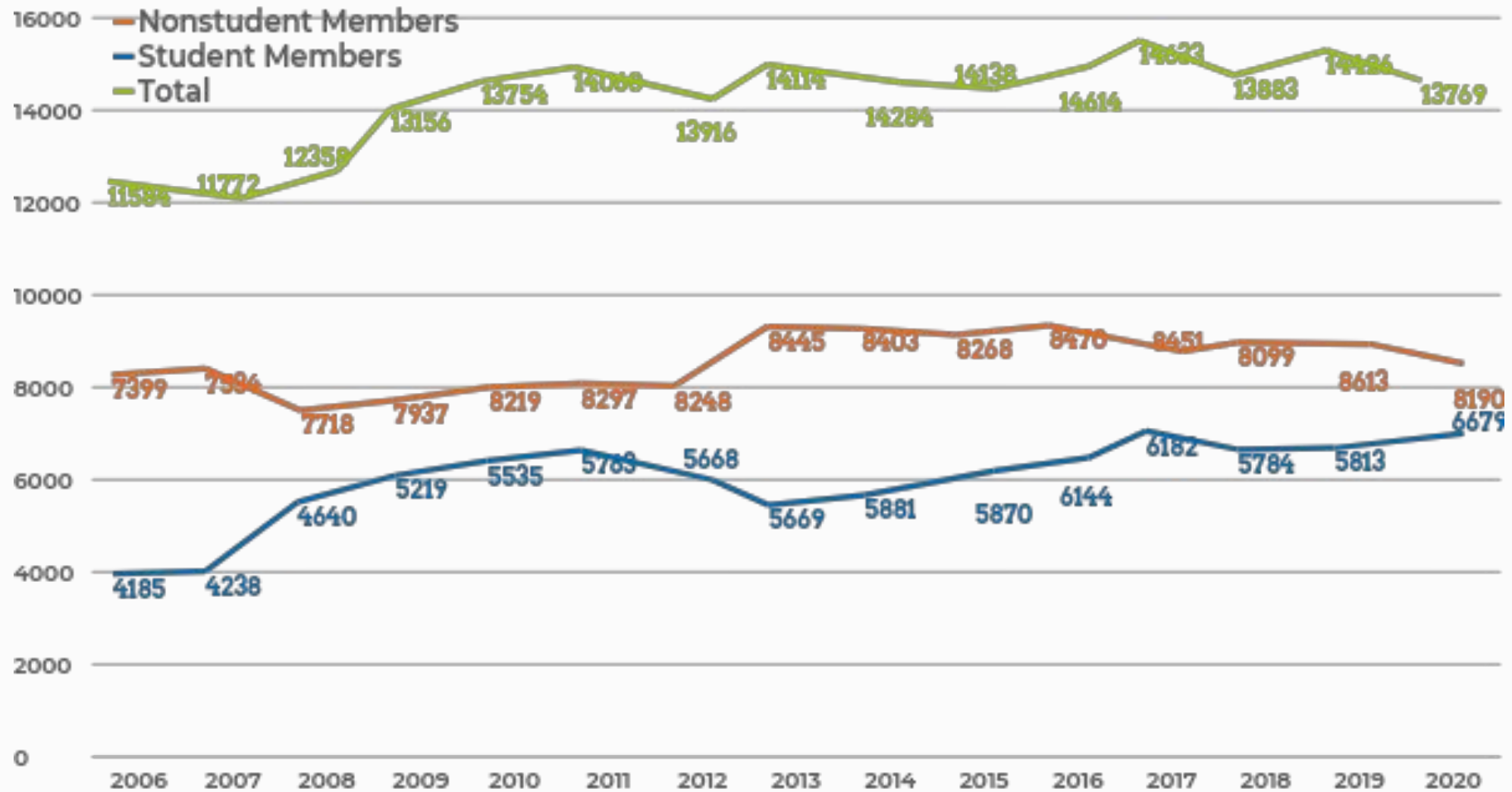
**siam** | Society for Industrial and  
Applied Mathematics



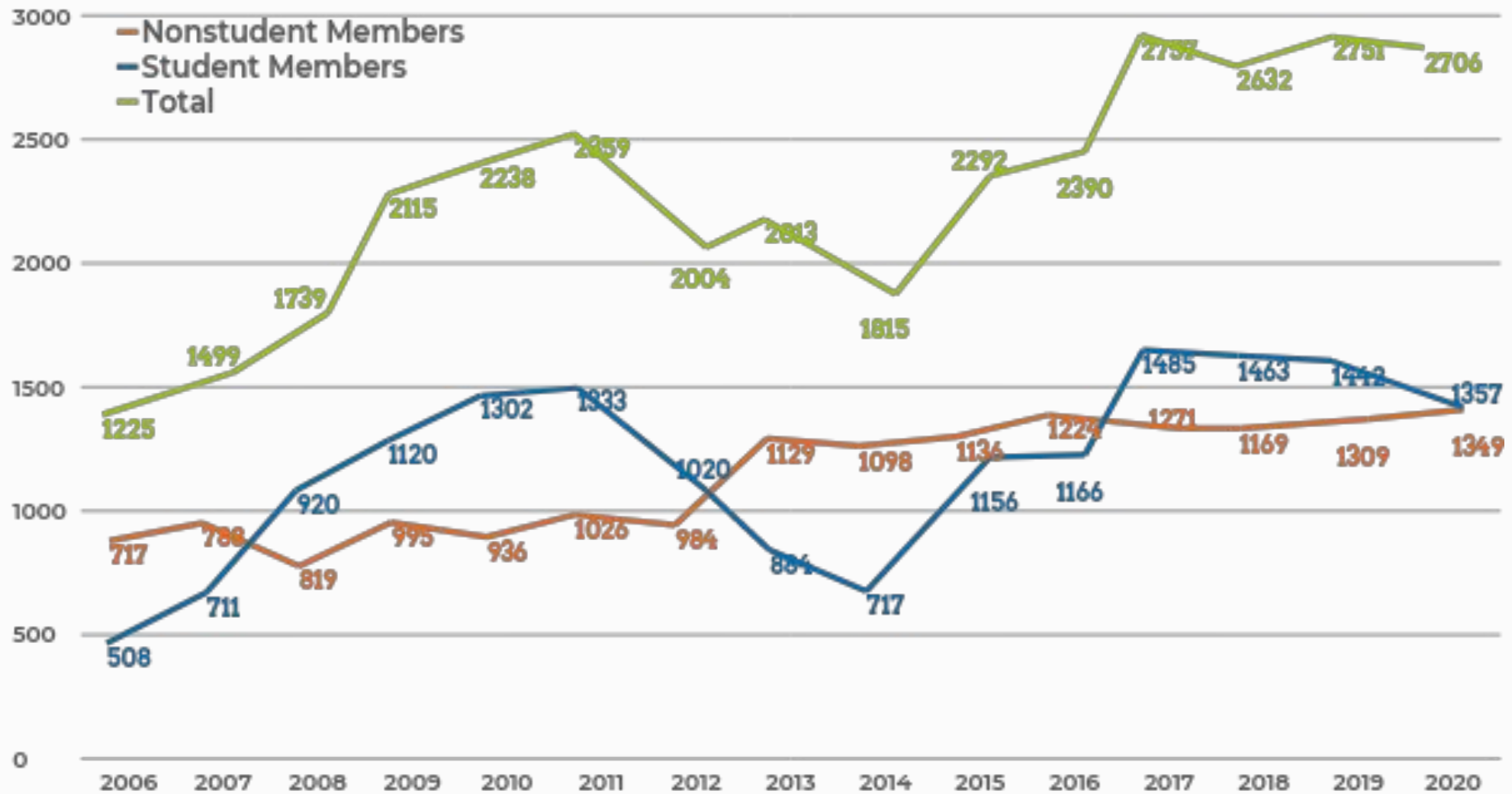
# SIAG Overall Membership



# SIAM Membership Demographics



# SIAG/CSE Membership Demographics



# SIAM Membership by Geography

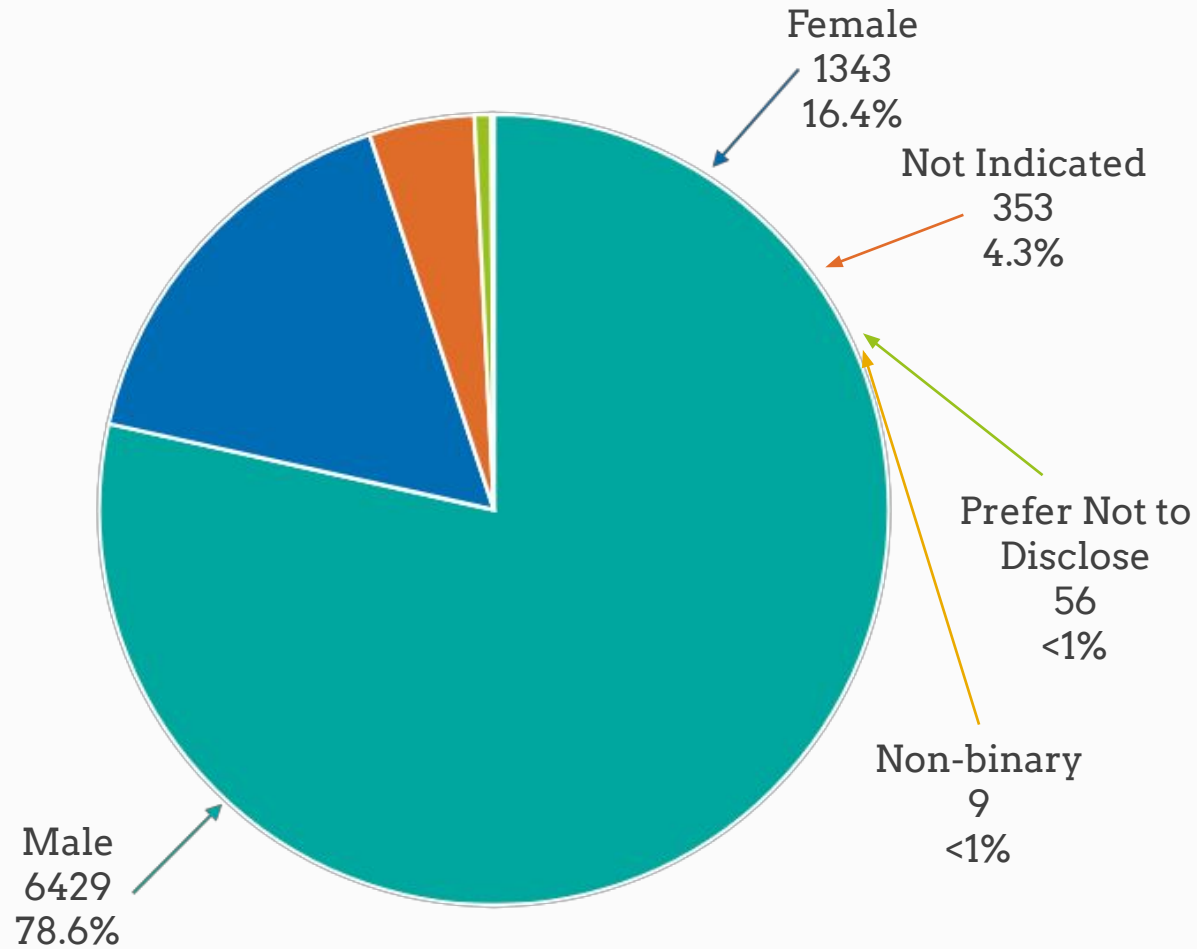
	US		Non-US		Total	
Nonstudent	4848	35.2%	3342	24.3%	8190	59.5%
Student	3795	27.5%	1784	13.0%	5579	40.5%
Total	8643	62.7%	5126	37.3%	13766	

# SIAG/CSE Membership by Geography

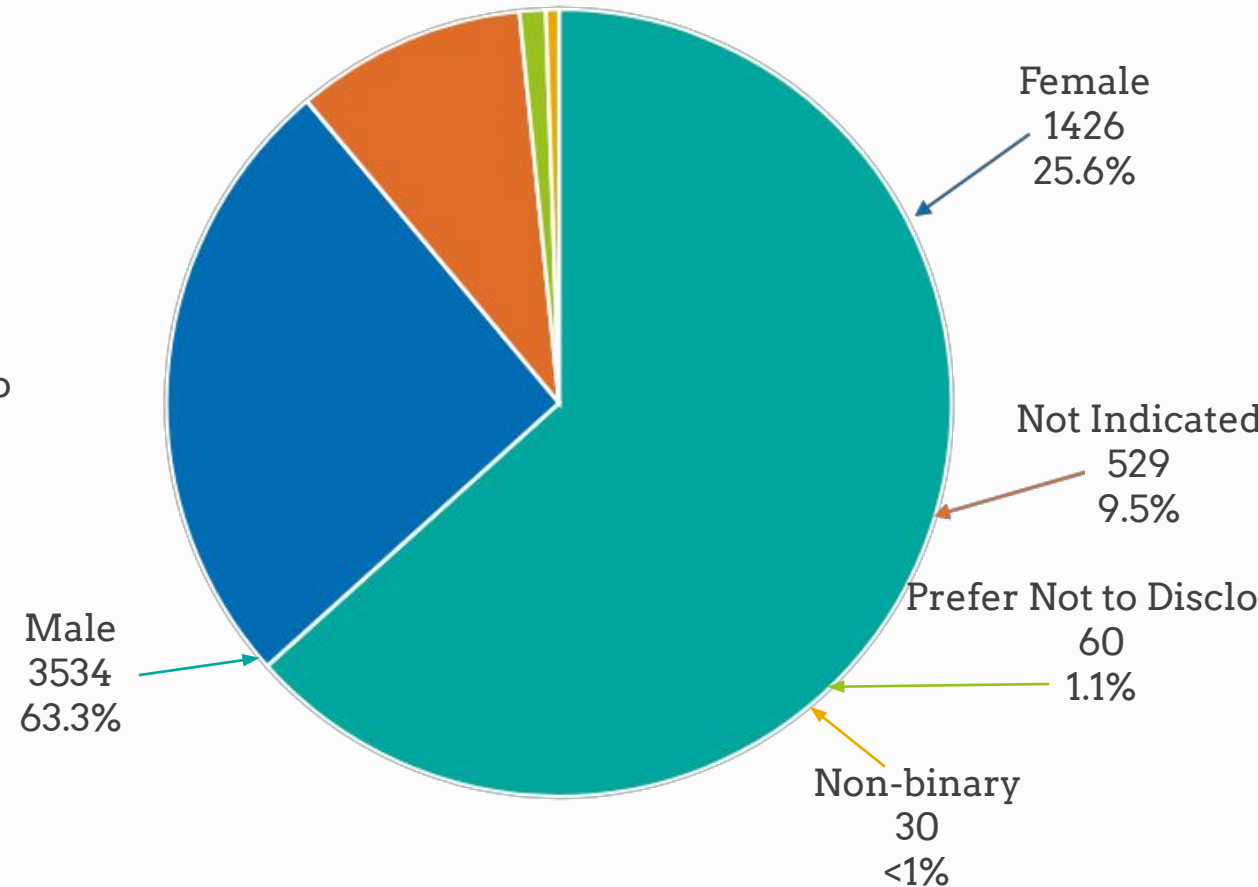
	US		Non-US		Total	
Nonstudent	882	32.6%	467	17.3%	1349	49.9%
Student	919	33.9%	438	16.2%	1357	50.1%
Total	1801	66.5%	905	33.5%	2706	

# SIAM Membership by Gender

## Nonstudents



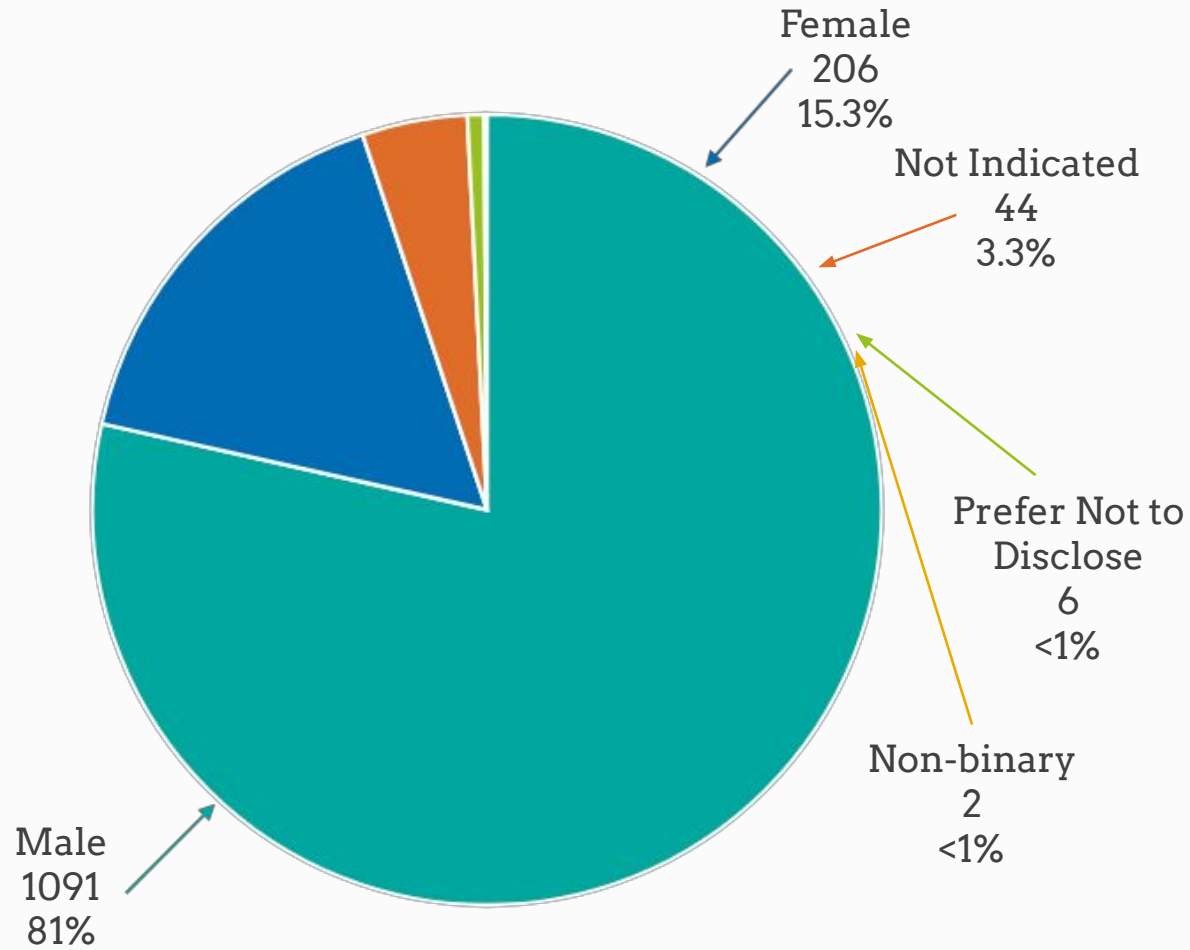
## Students



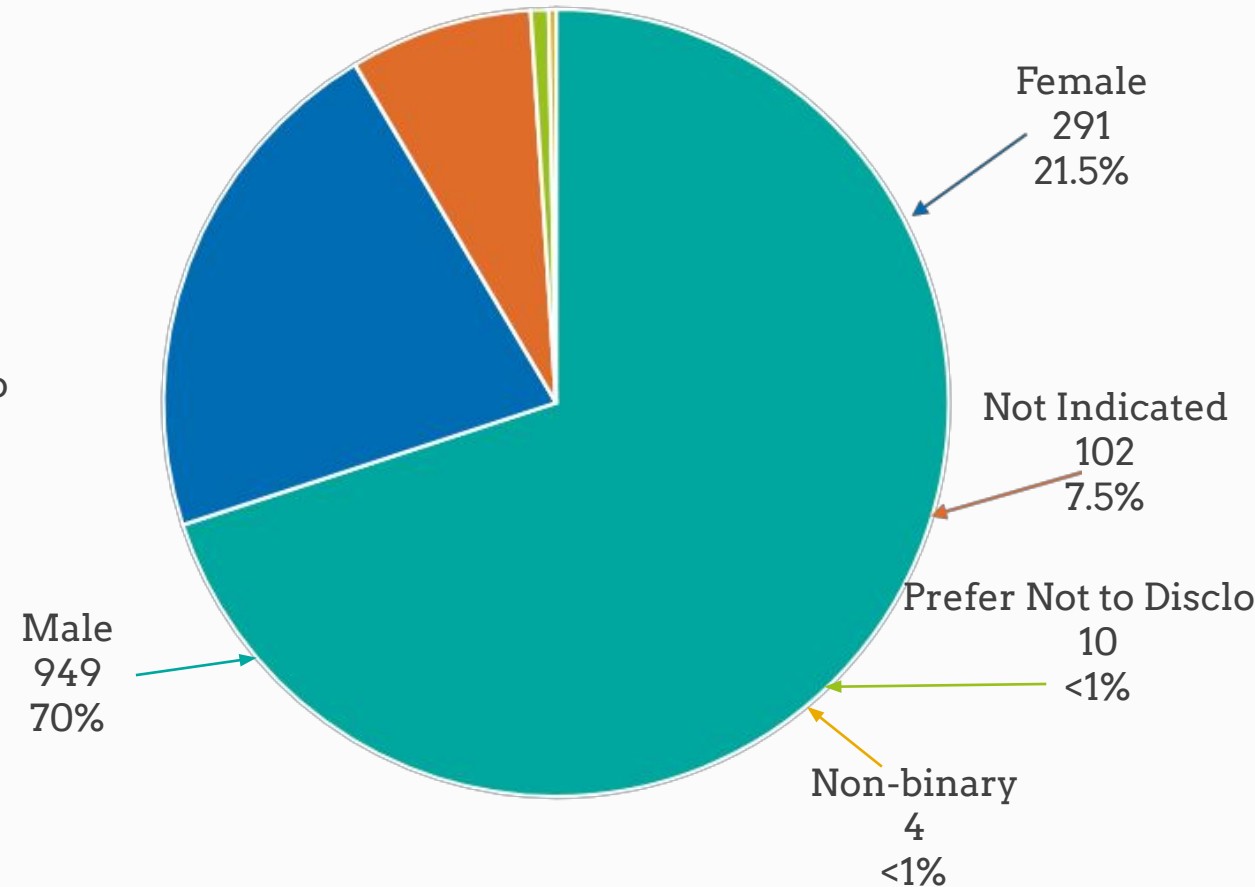


# SIAG/CSE Membership by Gender

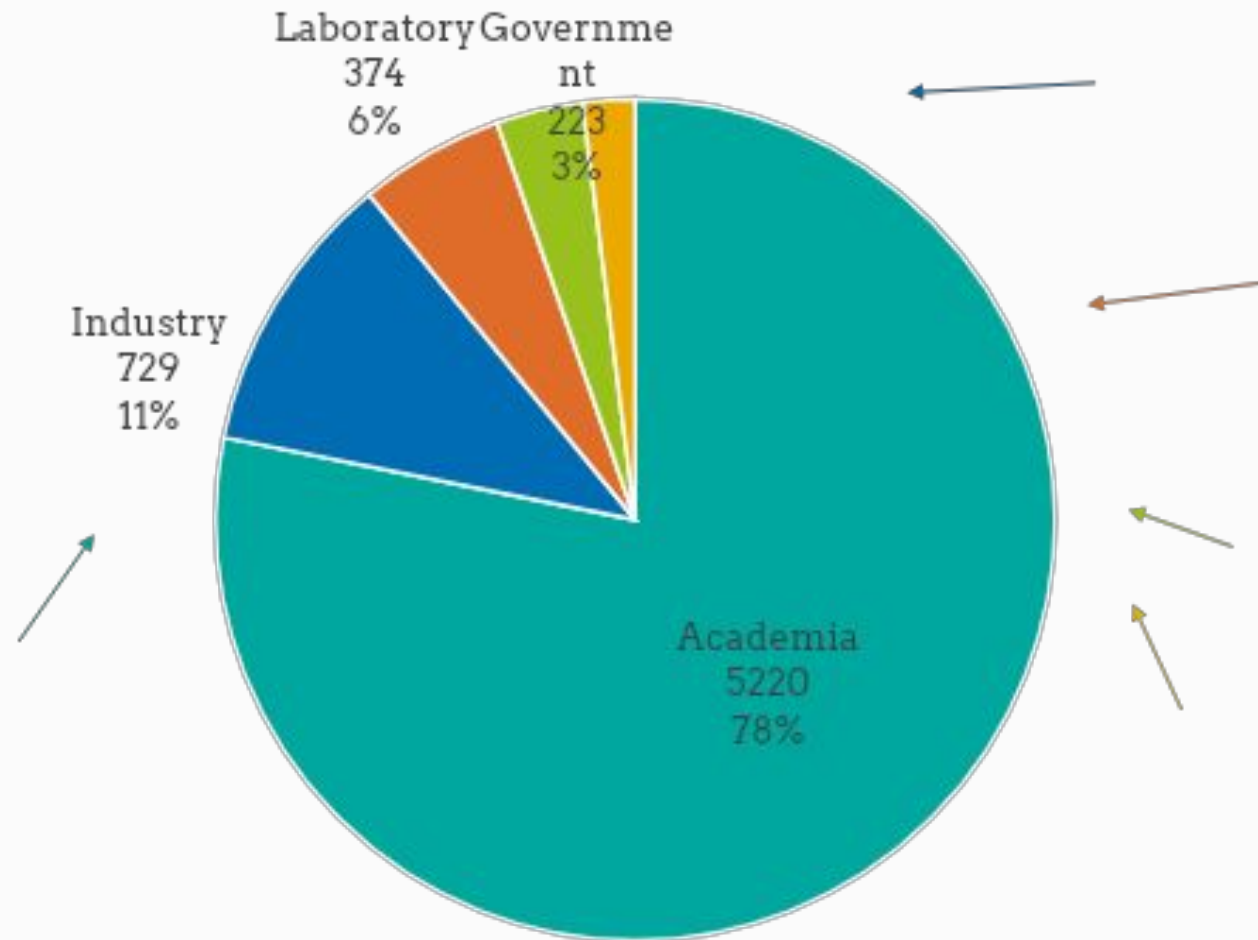
## Nonstudents



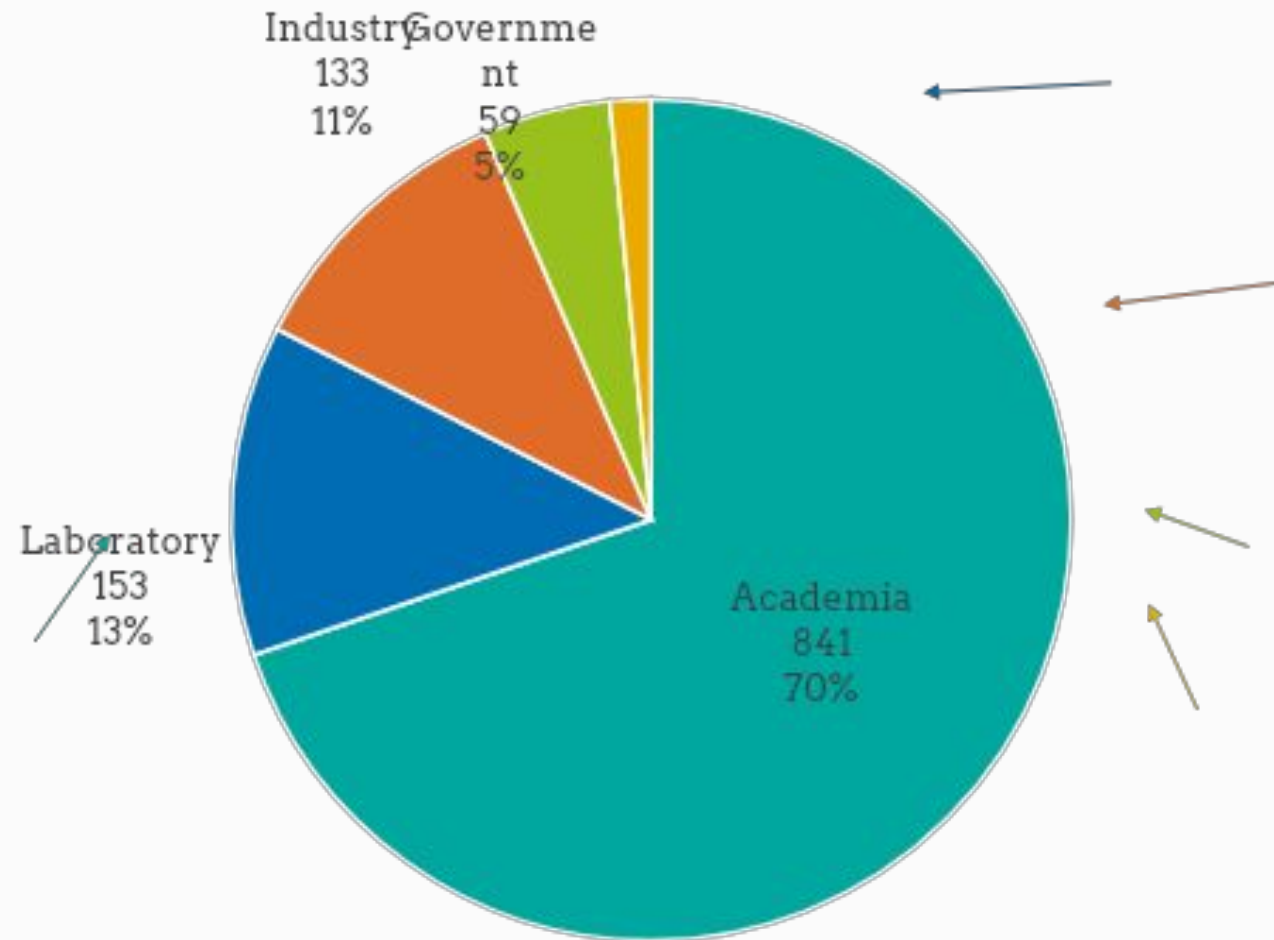
## Students



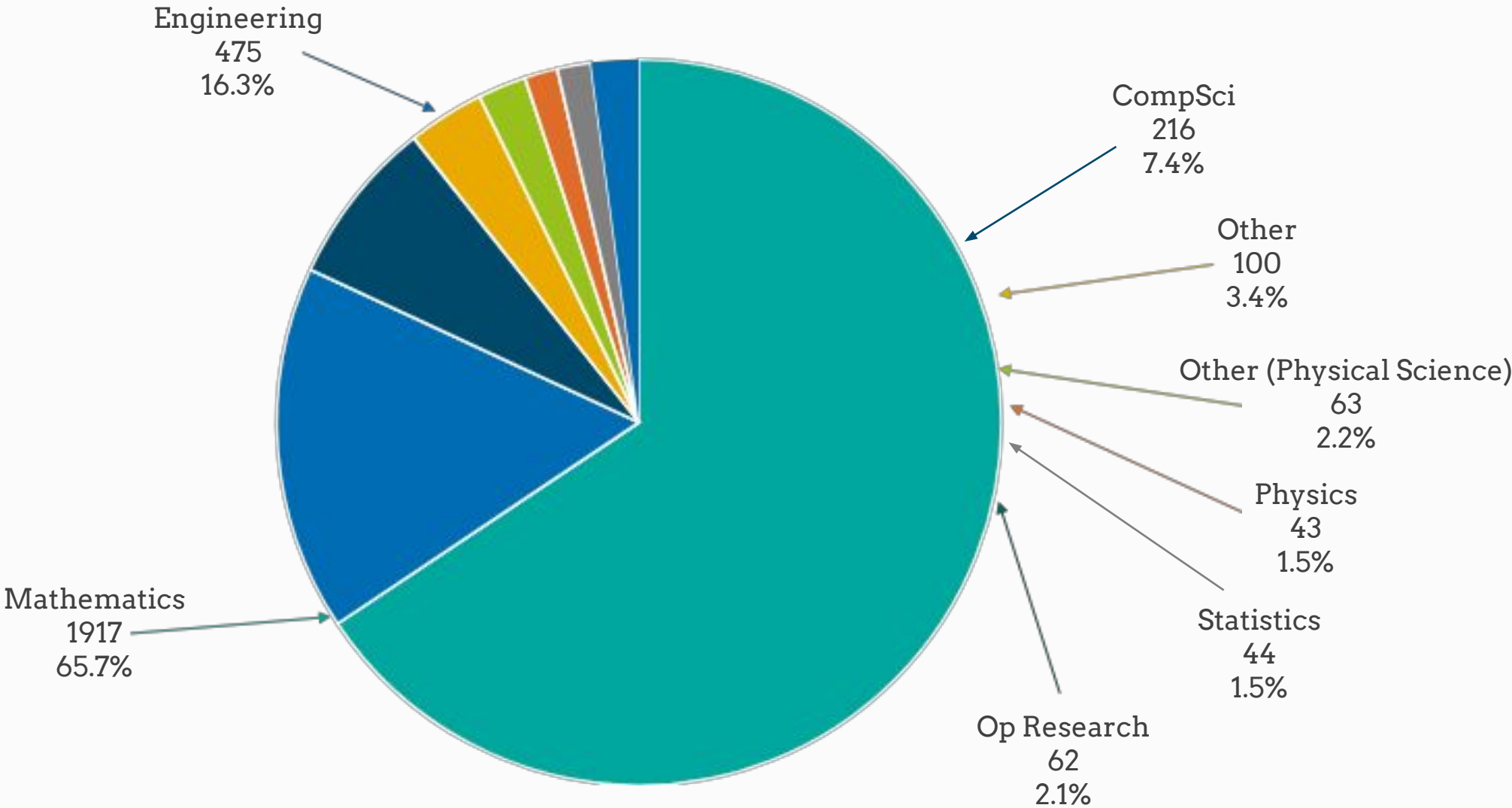
# SIAM Membership by Employer Type



# SIAG/CSE Membership by Employer Type

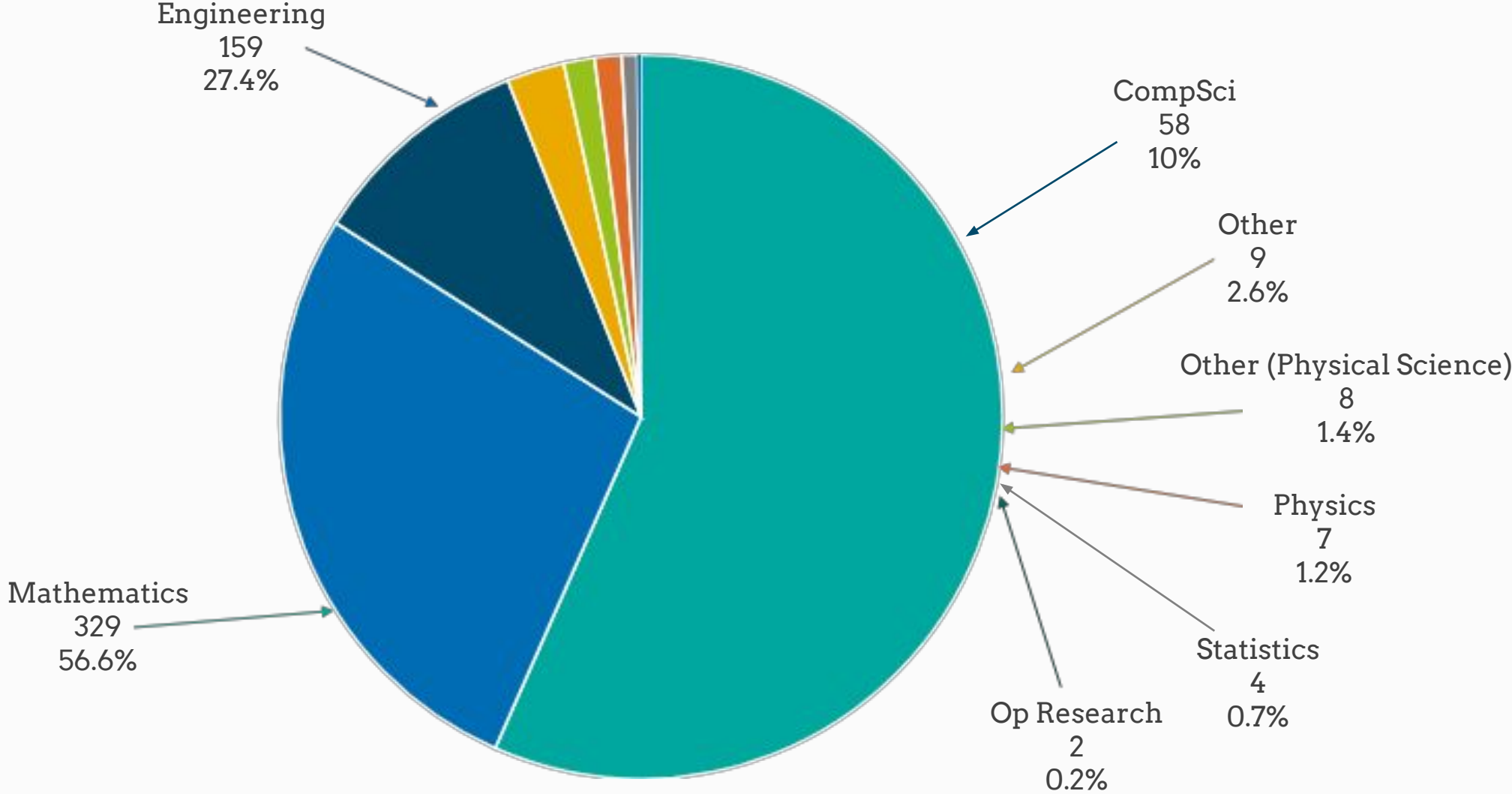


# SIAM Membership by Department Type





# SIAG/CSE Membership by Department Type



**Held Jointly with:**

- Conference on Applied and Computational Discrete Algorithms (ACDA21)
- Conference on Control and Its Applications (CT21)
- Conference on Discrete Mathematics (DM21)
- Conference on Optimization (OP21)

**Tracks of Sessions by SIAM SIAGs:**

- Mathematics of Planet Earth
- Nonlinear Waves and Coherent Structures

**Conference Information:**

- Online registration opens April 2021
- Contingency plans in place for either format, more information available spring 2021
- No other physical site considered for co-located meetings, if Spokane is not viable; all conferences will be held virtually.

More information available at:

<https://www.siam.org/conferences/cm/conference/an21>

# 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

# Contacts

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wild@anl.gov

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