#### SIAG/SC BUSINESS MEETING

Wednesday, February 24, 2010 8:30-9:00pm SIAM Conference on

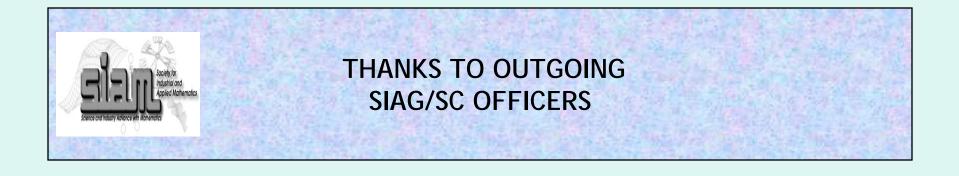
#### Parallel Processing & Scientific Computing

Grand Hyatt Seattle · Seattle, Washington February 24-26, 2010



NEW SIAG/SC OFFICERS 1/1/2010 - 12/31/11

Chair: Vice Chair: Program Director: Secretary: Cindy Phillips Boyana Norris David Bader Rich Vuduc



Mike Heroux, Chair Paul Hovland, Vice Chair Cindy Phillips, Program Director Ali Pinar, Secretary

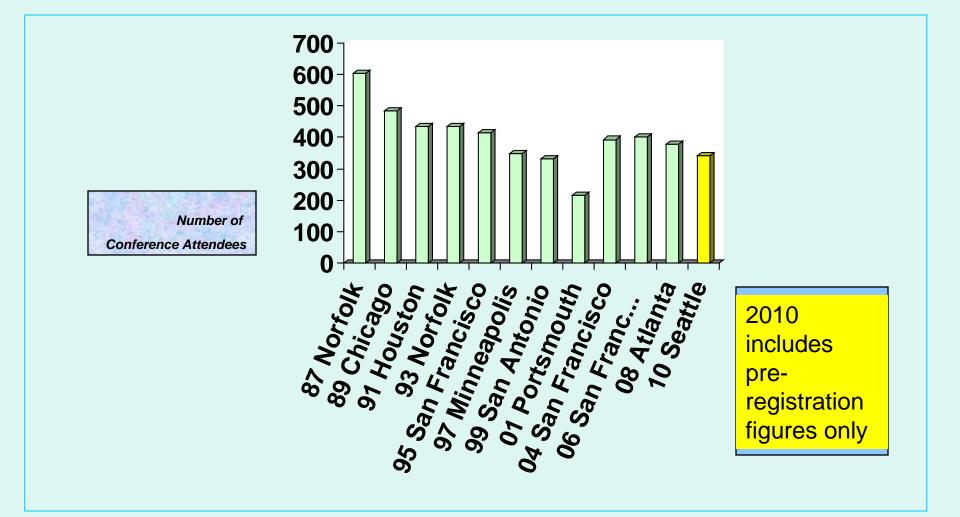
#### ANNOUNCEMENTS

- SIAG Charter renewed through 2011
- SIAG/SC website www.siam.org/activity/supercomputing
- SIAG/SC electronic mail list

siagsc@mailer.siam.org

- SIAM News: Story ideas

# SIAG/SC CONFERENCE HISTORY



## SIAG/SC CONFERENCE

- SIAM Conference on Parallel Processing and Scientific Computing (PP10)
- Co-Chairs
   Rob Bisseling, Utrecht University, Netherlands
   John Lewis, Cray Inc.
   Cynthia A. Phillips, Sandia National Laboratories

#### There is still room in the Tutorial

- Saturday, Feb 27, 9:00am-1:00pm
- An Introduction to GPU Programming
- Mike Giles (Oxford University), organizer/presenter

### SIAG/SC PRIZES

- Junior Scientist Prize
  - Established in 2009, is awarded to an outstanding junior researcher in the field of algorithms research and development for parallel scientific and engineering computing, for distinguished contributions to the field in the three calendar years prior to the year of the award. (Explicit rules for being junior).
- Career Prize
  - Established in 2009, awarded to an outstanding senior researcher who has made broad and distinguished contributions to the field of algorithms research and development for parallel scientific and engineering computing
- Lectures Thursday, February 25
  - Jack Dongarra 3:40-4:10
  - Kamesh Madurri 4:10-4:25

# **OTHER CONFERENCES**

• ICIAM July 18-22, 2011 Vancouver, British Columbia, Canada

## SIAM Journal on Scientific Computing (SISC)

- Ulrich Rüde (editor in chief)
- Mike Heroux is now an associate editor



#### SIAM Journal on Imaging Sciences (SIIMS)



#### Guillermo Sapiro, *Editor-in-Chief* Electronic only, continuous publication

**ACCEPTING SUBMISSIONS!** 

### Join SIAM!

- If you paid non-member registration fees, all credited
  - Join for \$20 if non-member registrant
- If you're not a SIAG/SC member, but are a SIAM member, join SIAG/SC for free.
- SIAM and SIAG memberships are a good way to be seen/remembered

### Benefits of SIAM Membership

- SIAM News
- SIAM Review
- 80%-95% journal discount
- 30% book discount
- 20%-30% conference discount

#### For Students:

- Student chapters
- Prizes
- Educational resources
- Fellowships and research opportunities
- Career options/guidance

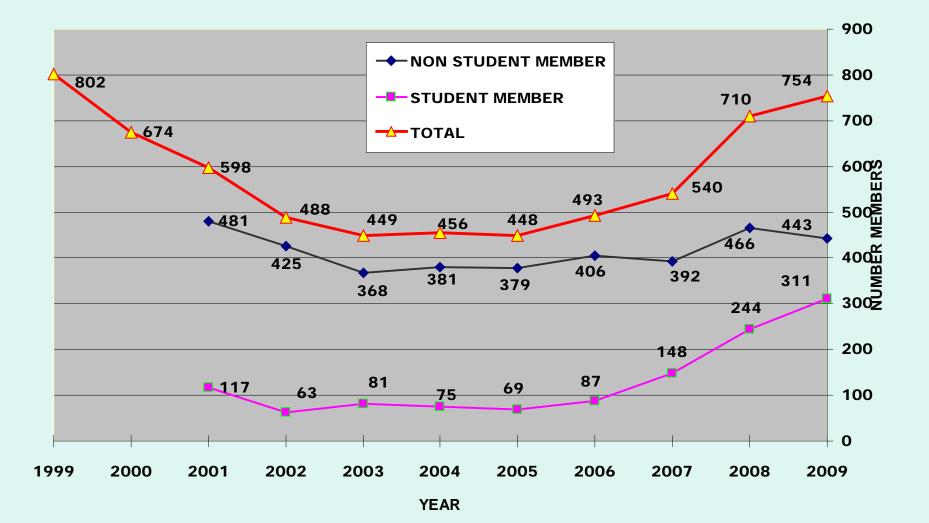
- Participate in SIAM governance
- Join SIAM Activity Groups
- Nominate 2 students for free membership
- CML combined membership directory

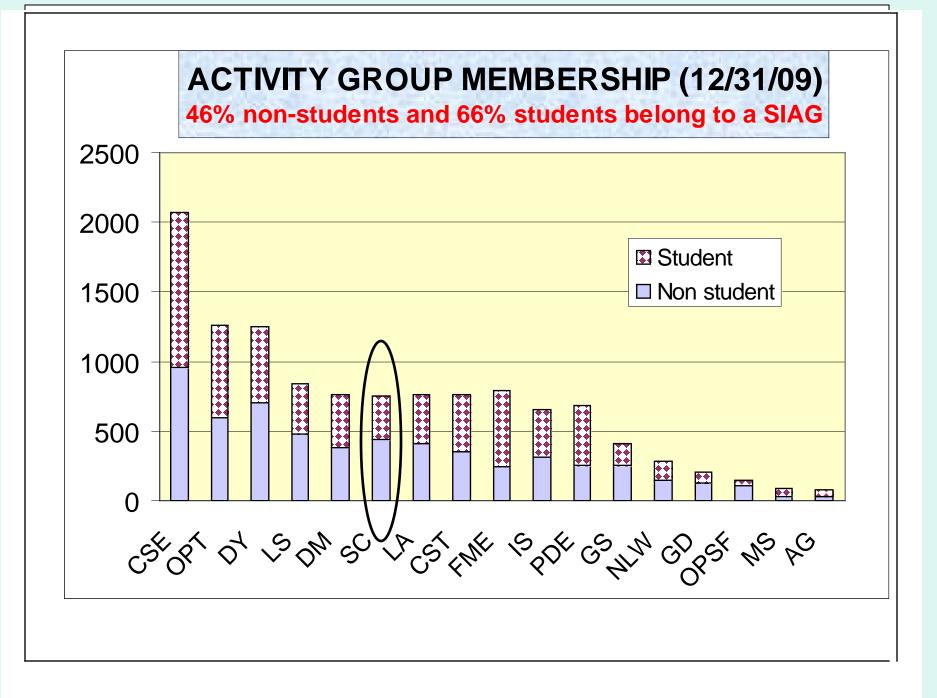
SIAG/SC MEMBERSHIP REPORT (as of 12/31/09)

#### SIAM Conference on Parallel Processing & Scientific Computing

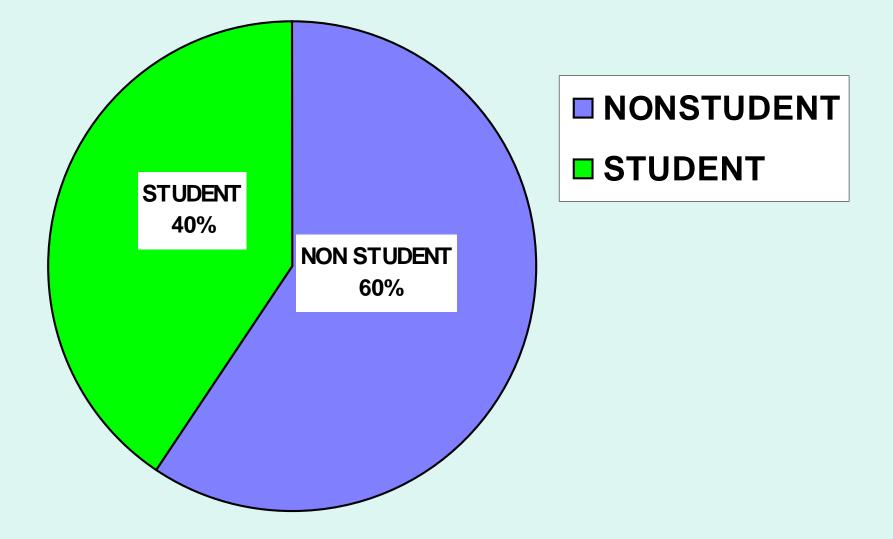
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# SIAG/SC Membership History

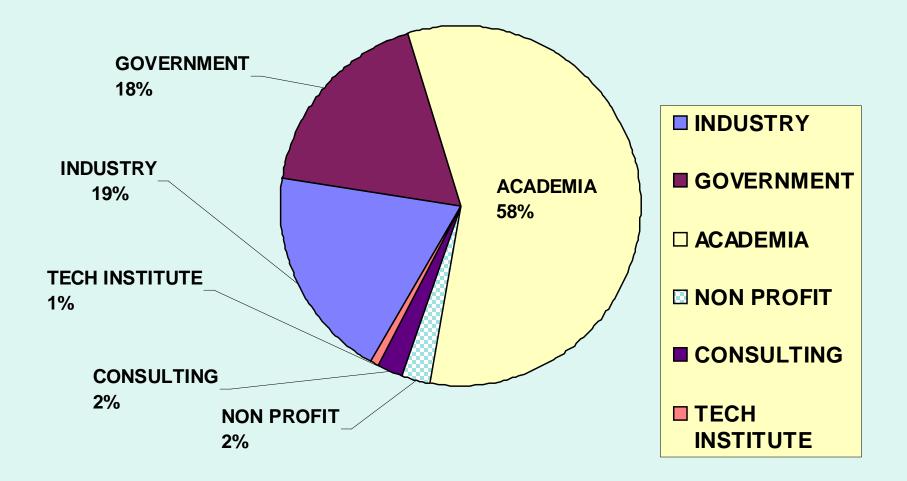




SIAG/SC MEMBERS 754 as of 12/31/09



SIAG/SC MEMBERS BY EMPLOYER TYPE not including students



# SIAG/SC MEMBERS BY GEOGRAPHY 77% US, 23% Outside US

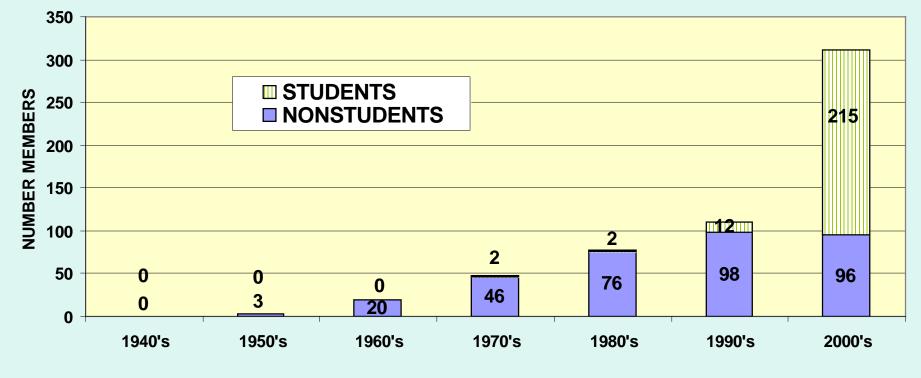
#### SIAG/SC MEMBERSHIP BY GENDER MALE 89% FEMALE 11%

46

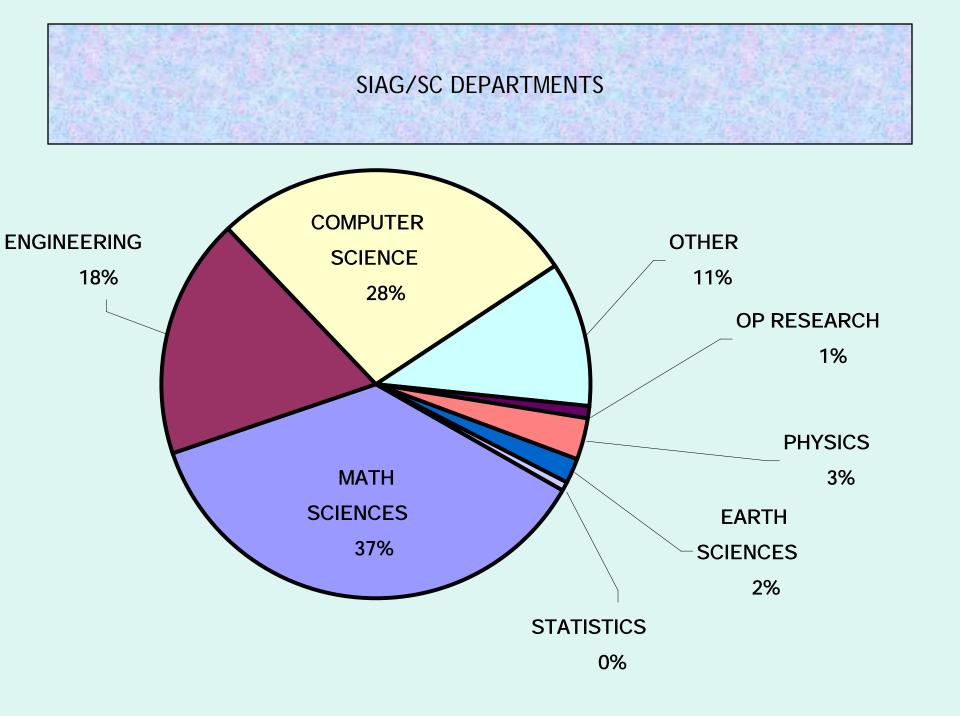
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#### SIAG/SC HIGHEST DEGREE EARNED



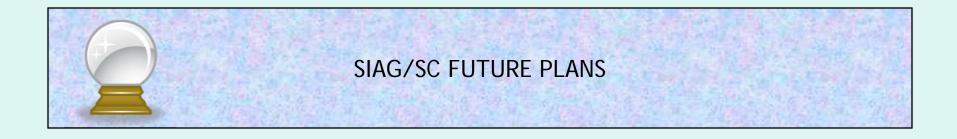


DECADE



### NEXT CONFERENCE: PP12

- Location
  - Savannah, GA USA
  - Santa Fe, NM USA
  - New York, NY USA
- Timing/Format
  - 4 days?
    - Lower session parallelism
    - Conference outing
    - Have poster session during the day



- Possible Other Activities?
- Other Business?

## Scheduling PP10

- Used Integer programming
  - Minimizing linear objective subject to linear and integrality constraints
- Objective: Minimize total pairwise similarity of sessions scheduled simultaneously
- Constraints
  - Individuals are never supposed to be in two places at once
    - Speaking, organizing, students
  - Day requests
  - 5-talk sessions at end of day
  - Multipart on same day if possible, and sequenced
  - Session parallelism limits

### Computing Similarity From MS abstracts

- Method 1 (Brett Bader)
  - Vector-space model (column = document, row = terms, matrix entry = frequency)
  - Log-entropy scaling (to bring out important terms)
  - Normalized to unit length
  - Cosine similarities for each pair of columns
- Method 2 (Dave Robinson)
  - Latent Dirichlet Analysis (LDA)
  - "Bag of words", but context considered
  - Documents = probabilistic mix of topics; topics = probabilistic mixture of words
  - LDA finds documents with similar (inferred) topics
  - Kullback-Leiber similarity measure (better ones for future)



- Chair: Cynthia A. Phillips (caphill@sandia.gov)
- Vice Chair: Boyana Norris (norris@mcs.anl.gov)
- Program David Bader Director:

Secretary: Richard (Rich) Vuduc (richie@cc.gatech.edu)