

SIAM Activity Group on Linear Algebra
Business Meeting

Monterey, 27 October 2009

The state of the SIAG is good!

Outline

- **Past:** What the SIAG has done
- **Present:** What the SIAG is doing
- **Future:** What is coming

With thanks, kudos, and appreciation

Current SIAG officers (2007–09)

- **Chair:** Daniel B. Szyld, Temple
- **Vice-Chair:** Michele Benzi, Emory
- **Program Director:** Andreas Frommer, Wuppertal
- **Secretary:** Victoria E. Howle, Texas Tech

Appointed Liaison Members

- **to SIAM Press:** Valeria Simoncini, Bologna
- **to SIAM News:** Nick Higham and Françoise Tisseur, Manchester

Past

[International Summer School on Numerical Linear Algebra \(ISSNLA\)](#)

Initial idea: Froilán Dopico (U. Carlos III, Madrid).

Initial document: Froilán Dopico, Andreas Frommer, and DBS
Established guidelines, rules, and structure for ISSNLA: Steering
Committee, Advisory Committee, Local Organizing Committee.

This document and much more in the SIAG web site:

<http://www.math.temple.edu/siagla>

(maintained by Victoria Howle)

Schools in 2008, 2010, and then every 3 years. (not the year of the
SIAM ALA Conf., nor of the Householder Symposium)

[First ISSNLA Steering Committee](#): Froilán Dopico, Andreas Frommer, Ilse Ipsen (NC State), and DBS

[First ISSNLA Advisory Committee](#): Dario Bini (Pisa), James Demmel (Berkeley), Iain Duff (Rutherford), Anne Greenbaum (U. Washington), Martin Gutknecht (ETH), Nicholas Higham (Manchester), Richard Lehoucq (Sandia), John Lewis (Cray, Inc.), Volker Mehrmann (TU Berlin), Dianne O'Leary (Maryland), Michael Overton (NYU), Lothar Reichel (Kent State), Axel Ruhe (Stockholm), Henk van der Vorst (Utrecht), Paul Van Dooren (Louvain)

First ISSNLA

CIEM, the International Center of Mathematical Meetings in Castro Urdiales, Spain, 21–25 July 2008

Local “partner”: SIMUMAT, the Spanish initiative from the Comunidad de Madrid on “Mathematical Modeling and Numerical Simulation in Science and Technology”

Local organizing committee: Blanca Ayuso (U. Autónoma de Madrid), Miguel Angel Benitez (SIMUMAT), Froilán Dopico (U. Carlos III, Madrid), Alberto Ibort (U. Carlos III, Madrid), Juan Manuel Molera (U. Carlos III, Madrid), Julio Moro (U. Carlos III, Madrid)

First ISSNLA Courses

- Lars Eldén, Linköping University, Sweden
Matrix methods in data mining
- Richard B. Lehoucq, Sandia National Labs
Mechanics and linear algebra
- David S. Watkins, Washington State University
Structured eigenvalue problems: modern theory and computational practice
- Michael Eiermann, University of Freiberg, Germany
Krylov subspace methods for solving linear systems

First ISSNLA: Some Statistics

- 75 applications
- 51 graduate students accepted, from 18 countries: Belgium 2, Brazil 1, Canada 5, Czech Republic 4, Croatia 3, Germany 9, Ireland 1, Italy 2, Japan 2, Lithuania 1, Norway 1, Russia 1, Slovenia 1, Spain 10, Turkey 1, UK 1, USA 5, Venezuela 1.
- Local organizers raised €29,000 (including €1,500 from GAMM)
- SIAM contributed \$2,500
- NSF grant \$13,000 (PI: Ilse Ipsen and DBS)

Conferences in cooperation with the SIAG/LA

- 2007 International Conference on Preconditioning Techniques for Large Sparse Matrix Problems in Scientific and Industrial Applications, Toulouse, France, July 2007
- ILAS Meeting, Shanghai, China, July 2007
- Computational Methods with Applications, Harrachov, Czech Republic, August 2007
- IMA Conference on Numerical Linear Algebra and Optimisation, University of Birmingham, UK, September 2007
- Seventh International Workshop on Accurate Solution of Eigenvalue Problems, Dubrovnik, Croatia, June 2008
- Fifth International Workshop on Parallel Matrix Algorithms and Applications (PMAA'08), Neuchatel, Switzerland, June 2008
- ILAS Meeting, Cancun, Mexico, June 2008

SIAG/LA presence at SIAM meetings

- ICIAM Zurich 2007 (17 minisymposia, 2 plenary lectures - see report by Valeria Simoncini at the SIAG/LA website)
- Annual Meeting 2008 San Diego (several minisymposia and contributed sessions)
- Annual Meeting 2009 Denver (several minisymposia and contributed sessions)
- This meeting, Esmond Ng, Chair.

SIAG/LA Charter renewed through 2012

Present

This conference:

- Above average attendance
- Record number of talks

Record membership:

686 (286 students) vs. 556 (177 students) in 2006

68% members outside the US

SIAG/LA well represented in Class of 2009 SIAM Fellows

Jim Demmel	Jack Dongarra
Howard Elman	Alan George
Nick Higham	Peter Lancaster
Tom Manteuffel	Cleve Moler
Dianne O'Leary	Michael Overton
Seymour Parter	Pete Stewart
Gil Strang	Nick Trefethen
Henk van der Vorst	Paul Van Dooren
Charles Van Loan	Margaret Wright

SIAG/LA Prize

2009 Awardees: Zlatko Drmač and Krešimir Veselić

New Fast and Accurate Jacobi SVD Algorithm, Parts I-II

SIAM Journal of Matrix Analysis and Applications, vol. 29, No. 4, 2008

Prize Committee: Michele Benzi, Chair, Inderjit Dhillon (Austin), Peter Lancaster (Calgary), Julio Moro (U. Carlos III. Madrid), Henk van der Vorst (Utrecht)

Upcoming election for SIAG/LA officers

- **Chair:** Michele Benzi (Emory) or Julio Moro (U. Carlos III)
- **Vice-Chair:** Andreas Frommer (Wuppertal) or Alison Ramage (Strathclyde)
- **Program Director:** Inderjit Dhillon (Austin) or Chen Greif (UBC)
- **Secretary:** Sue Dollar (Rutherford) or José Mas (Valencia)

Nominating Committee:

Victoria Howle, chair, Martin Gutknecht (ETH), Misha Kilmer (Tufts)
Dale Olesky (Victoria), Lothar Reichel (Kent)

Future:

Second ISSNLA and First Gene Golub SIAM Summer School (G2S3)

Location: Selva di Fasano (Brindisi), Italy, June 7–18, 2010

Application deadline: February 1, 2010

URL: <http://www.ba.cnr.it/ISSNLA2010/>

Local organizing committee:

Fasma Diele (IAC-CNR, Bari)

Teresa Laudadio (IAC-CNR, Bari)

Nicola Mastronardi (IAC-CNR, Bari)

Filippo Notarnicola (IAC-CNR, Bari)

Valeria Simoncini (Università di Bologna)

Nicola Fracasso (Administrator IAC-CNR, Bari)

ISSNLA 2010 courses

- James Demmel, University of California, Berkeley
Minimizing communication in numerical linear algebra
- Volker Mehrmann, Technische Universität Berlin, Germany
Nonlinear eigenvalue problems: analysis and numerical solution
- Charles Van Loan, Cornell University
From matrix to tensor: the transition to computational multilinear algebra
- Margaret Wright, Courant Institute, New York University
Linear algebra and optimization

Upcoming conferences

- SIAM Annual, July 12–16, 2010, Pittsburgh, special LA track.
LA invited speakers
 - Olga Holtz
 - Tammy Kolda
 - Sherry LiMinisymposia (talk to Andreas Frommer)
- ICIAM July 18–22, 2011, Vancouver
Minisymposia

Upcoming conferences (cont.)

In cooperation with the SIAG:

- ILAS Conference, June 21–25, 2010, Pisa, Italy
- ILAS Conference, August 22–26, 2011, Braunschweig, Germany
- Householder Symposium, June 12–17, 2011, Tahoe City, California.

Also of note:

- GAMM Workshop on NLA, Novi Sad, Serbia, May 24–28, 2010.
- International Workshop on Accurate Solution of Eigenvalue Problems VIII, June 28 - July 1, 2010, Berlin, Germany

SIAM Conference on Applied Linear Algebra 2012

Location: Valencia, Spain

Organizers: Rafael Bru and José Mas

Dates: June 18–22, 2012