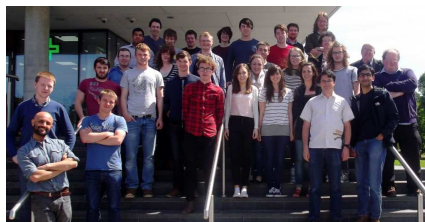


UK and Republic of Ireland Section of SIAM

20TH ANNIVERSARY SECTIONAL MEETING



University of Cambridge
January 7, 2016



SIAM SECTIONS AROUND THE WORLD

- Argentinian Section (AR-SIAM)
- Bulgaria Section (BGSIAM)
- Central States Section (Arkansas, Colorado, Iowa, Kansas, Mississippi, Missouri, Nebraska, and Oklahoma)
- Colombia Section (COSIAM)
- East Asia Section (EASIAM): East and South East Asia
- The Great Lake Section (Michigan, Northern Ohio, Northern Indiana, Southern Ontario, and surrounding areas)
- Southeastern Atlantic Section (Alabama, Florida, Georgia, North Carolina, South Carolina and Tennessee)
- UK and Republic of Ireland Section (SIAM-UKIE)
- Washington-Baltimore Section (Washington, D.C., and Baltimore, Maryland)

SIAM-UKIE SECTION

- The SIAM-UKIE Section was established at the end of 1996, following a petition that was approved by SIAM Council on December 13, 1996.
- “The avowed purpose of the section is to enable UK and Irish members of SIAM to benefit more from their membership through local meetings and other activities...” (SIAM-UKIE Inaugural Meeting, January 6, 1997)

April 1997 SIAM NEWS • 3

Manchester Hosts Inaugural Meeting Of UK and Irish SIAM Section

By Nicholas J. Higham

The inaugural meeting of the UK and Irish SIAM Section was held at the University of Manchester Institute of Science and Technology, January 6, 1997. Five invited speakers gave talks covering a broad range of applied mathematics.

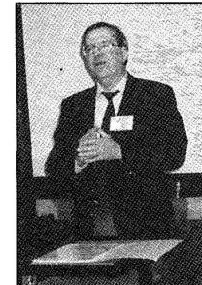
The speakers in the morning session were Trevor Stuart (Imperial College), “Singularities in the Solution of the Euler Equations for Three-Dimensional Flows,” and Margaret Wright (Bell Laboratories, Lucent Technologies), “The Other Simplex Method: Not Derivative Optimization 30 Years On.” Lunch was preceded by a business meeting.

Speaking after lunch were David Crighton (Cambridge University), “Applied Mathematics Research: The Key to the Engineering Future,” and David Sloan (Strathclyde University), “Approximate Solution of PDEs with Steep Solutions Using Adaptivity and Pseudo-spectral Methods.” John Ockendon (Oxford University) closed the meeting with a talk titled “Making Contact in Mathematics and in Industry.”

Among the 46 people attending (despite the extreme cold) were both SIAM members and interested nonmembers, with a wide representation of institutions throughout the UK and Ireland.

Moves to set up the UK and Irish SIAM Section were initiated more than two years ago by David Silvester (UMIST) and Andy Wathen (Oxford University). Seeing the need for a section, they wrote to the just under 200 SIAM members resident in the UK and Ireland asking for support for the formation of a section. After receiving indications of strong support, they prepared a letter of application for submission to the SIAM Board of Trustees. The letter was accompanied by a petition signed by 20 SIAM members, as required by SIAM rules. Formation of the section was approved by the SIAM board at its December 1996 meeting.

At the end of the inaugural meeting, Bill Morton (Oxford University) thanked Silvester and Wathen for their tireless efforts in setting up the section and judged the meeting a success. Rules for the new



David Sloan of the Department of Mathematics, Strathclyde University, Glasgow, Scotland, discussed the approximate solution of PDEs at the first meeting of the UK and Irish SIAM Section.

section were discussed at the business meeting and subsequently finalized for submission to the SIAM board by the temporary officers (Nick Higham, Bill Morton, David Silvester, and Andy Wathen) designated by the SIAM president.

The avowed purpose of the section is to enable UK and Irish members of SIAM to benefit more from their membership through local meetings and other activities. All SIAM members resident in the UK or Ireland are automatically members of the section. Nominations for officers of the section were solicited, with a cut-off at the end of January; the election of permanent officers to two-year terms is now under way.

The main meeting of the section is to be held annually, in early January. Those present at UMIST welcomed the announcement made at the end of the meeting that the next SIAM conference on combustion will be held in the UK—may it be the first of many SIAM conferences to take place in the UK or the Republic of Ireland!

Nicholas J. Higham is a professor in the Department of Mathematics at the University of Manchester.

SIAM-UKIE OFFICERS

Society for Industrial and Applied Mathematics

United Kingdom and Republic of Ireland Section (SIAM-UKIE)



SIAM-UKIE Newsletter Number 7, April 2015

Welcome New SIAM-UKIE President and Vice-President



Prof Des Higham, SIAM-UKIE President, 1.IV.2015-31.III.2017

As [SIAM-UKIE Section President](#), I will energetically support the full range of SIAM-UKIE activities. In particular, I will draw on my experience of (a) serving as Vice-President of SIAM-UKIE; (b) authoring, refereeing and editing across a range of SIAM's technical and expository outputs; and (c) helping to set up the Strathclyde Student Chapter of SIAM. I currently hold an EPSRC Established Career Fellowship in the area of Data Analytics for Future Cities, and I have a remit to encourage activity in this area across the mathematical sciences. I see this as an exciting and timely field where applied mathematicians can make significant impact. In particular, I am keen to alert graduate students and early career researchers to the opportunities in the future cities arena through the event series and communication channels of SIAM-UKIE.

Dr Jennifer Scott, SIAM-UKIE Vice-President, 1.IV.2015-31.III.2017

As [SIAM-UKIE Vice-President](#), I will be keen to build on the experience I have gained through the LMS Women in Mathematics Committee to encourage women and other underrepresented groups. SIAM has made significant progress in this area but there remains (in the UK at least) a big drop off in the number of women mathematicians progressing from PhDs to postdocs and again from postdocs to junior posts. I want to encourage the careers of young women, both within academia but also within organizations such as STFC and within industry.



Date for the Diary: 20th SIAM-UKIE Annual Meeting, January 7, 2016

The [20th Annual Meeting of the UK and Republic of Ireland Section of SIAM](#) will be hosted by the Department of Applied Mathematics and Theoretical Physics, University of Cambridge, UK, on [January 7, 2016](#). The event will feature high profile keynote and early career speakers, and poster presentations from Student Chapter representatives. Further information will appear on the [event's webpage](#) soon.

Congratulations to SIAM Fellows Class 2015

[Prof Charlie Elliott](#) (Mathematics, University of Warwick) honoured for contributions to the numerical analysis of nonlinear partial differential equations and computational mathematics with applications in mathematical biology, materials science, continuum mechanics, and phase transitions, as well as numerical analysis and applied analysis.

[Prof Rodolphe Sepulchre](#) (Engineering, University of Cambridge) recognized for contributions to nonlinear control, optimization on manifolds, coordination, synchronization, and consensus on nonlinear spaces, and neural behaviours.

In This Issue

- Welcome New SIAM-UKIE President and Vice-President
- Date of 20th SIAM-UKIE Annual Meeting 2016
- Congratulations to UK SIAM Fellows Class 2015
- SIAM-UKIE Student Presentation Prizes 2015
- UK SIAM Chapters Present at CSE15
- SIAM Chapter Events Update

President:

Prof Des Higham (Strathclyde)
April 1, 2015 - March 31, 2017

Vice-President:

Dr Jennifer Scott (STFC-RAL)
April 1, 2015 - March 31, 2017

Secretary/Treasurer:

Dr Angela Mihai (Cardiff)
April 1, 2014 - March 31, 2016

We thank Prof Endre Süli (Oxford) and Prof Françoise Tisseur (Manchester) for their contribution as Section officers until March 2015.

SIAM-UKIE MEMBERS

There were 600 members reported at the end of 2015:

UK: 563 (299 students, 264 nonstudents)

Ireland: 37 (22 students, 15 nonstudents)

(586 members in 2014, 480 members in 2013).



Membership in the SIAM-UKIE Section is free and automatic for all SIAM members whose residence or principal place of work or study is in the UK or the Republic of Ireland.



SIAM student membership is free for those who study full-time in an institution that is an Academic Member of SIAM and for members of a Student Chapter of SIAM.

SIAM MEMBERSHIP DISCOUNTS

SIAM offers an **early career membership** at **50% off the price of regular membership** for the first 3 years after graduation, then **25% off** for the 4th and 5th years, with all the benefits of regular membership.



Individual members of the Institute of Mathematics and its Applications (IMA) qualify for reciprocal membership rates in SIAM. **Reciprocal members** receive up to **30% discount off the regular member dues rate** and receive all the benefits of regular membership.

SIAM MEMBERS BENEFITS

SIAM publishes 16 world leading scientific journals, several books, and organizes many international and sectional conferences every year.



SIAM members receive discounts on all SIAM conference registrations, books, and journals.



Cambridge University Press also offers 30% members' discount on SIAM books distributed outside North America.

SIAM-UKIE STUDENT CHAPTERS

University of Bath

University of Cambridge

Cardiff University

Heriot-Watt/Edinburgh Universities

Imperial College London

National University of Ireland Galway

University of Manchester

University of Oxford

University of Reading

University of Strathclyde

University of Warwick

SIAM-UKIE STUDENT CHAPTER ACTIVITIES

- 8 student chapter members received SIAM Certificates of Recognition 2015.
- 3 SIAM-UKIE student chapter representatives presented during the Student Days at the SIAM Conference on Computational Science and Engineering (CSE15) in Salt Lake City, Utah, USA, 2015.

SIAM-UKIE Newsletter Number 6, June 2015

SIAM Student Chapter Launch Event, Cambridge 2015

The newly founded SIAM Student Chapter at the University of Cambridge held their Launch Conference on 27th April 2015. The programme included guest lectures by Prof. Frank Kelly (Statslab, Cambridge), Dr. Colin Caulfield (DAMTP, BPL, Cambridge), Dr. Joan Lasenby (Engineering, Cambridge), Prof. Elizabeth Mansfield (University of Kent), and Prof. Mason Porter (University of Oxford). We would like to thank all the students, faculty members, and representatives of Cambridge businesses who attended the talks and made the opening of the Cambridge SIAM Student Chapter a success! - Luca Calatroni (SIAM Chapter Webmaster, Cambridge)



Prof. Mason Porter, guest lecturer at SIAM Student Chapter Launch Conference, Cambridge, 27th April 2015.

SIAM Students Chapter Activities, Manchester 2015

The Manchester SIAM Student Chapter committee organized this year a number of events:

- A social gathering to allow the members to meet the committee and give feedback;
- A half-day workshop with an industry contact (Sabisu);
- The Annual Manchester SIAM Student Chapter Conference 2015 (MSSCC2015) which is in its 5th year, with invited speakers from Upside Energy and Moving Picture Company.

With these events, the committee was able to create networking opportunities for undergraduates and post-graduates of the University of Manchester, and to introduce and advertise the SIAM organisation and its services. We are proud to announce that this year, our member database grew by more than 40 members from across the university! - Sophia Coban (SIAM Chapter President, Manchester)



Group photograph of the participants at 5th MSSCC, University of Manchester, 21st May 2015.

SIAM Certificates of Recognition 2015

The 2015 SIAM Certificates of Recognition has been awarded to the following UKIE SIAM Student Chapter members: Katy Gaythorpe (Bath), Eoin Devane (Cambridge), Ross McKenzie (Cardiff), Jakub Konečný (Edinburgh), Stephen Russell (Galway), Sophia Bethany Coban (Manchester), Ben Snow (Strathclyde), Fatzan Nazir (Warwick).

This program recognizes students' contribution to the development and growth of SIAM Student Chapters through exciting chapter activities, and acknowledges their efforts within the greater SIAM community. Many congratulations to all the recipients!



Prof. David Silvester presenting Sophia Coban (Manchester) with the 2015 Certificate of Recognition.

Contributors: Sophia Coban (Manchester), Luca Calatroni (Cambridge), Des Higham (Strathclyde), Anne Reinartz (Reading), Jennifer Scott (RAL), Editor: [Angela Mithu](#)

SIAM-UKIE SPONSORED ACTIVITIES

● 4th SIAM National Student Chapter Conference (SNSCC), University of Reading, 2015.



● 3 student presentation prizes at 4th BMC/BAMC, University of Cambridge, 2015.

● 1 student presentation prize at 23rd ACME-UK, Swansea University, 2015.

● 3 student presentation prizes at 26th Biennial Numerical Analysis Conference, University of Strathclyde, 2015.

● Dr Carola Schölieb, SIAM speaker at 7th YRMC, University of Oxford, 2015.

EVENTS HIGHLIGHTS

- IMA Mathematics, Mary Ward House, London, March 17, 2016.
- BAMC, University of Oxford, April 5-8, 2016.
- 5th SNSCC, Cardiff University, May 27, 2016.
- 8th YRMC, University of St Andrews, August 12-15, 2016.
- 7th International Conference on Algorithmic Differentiation, University of Oxford, September 12-15, 2016.

Society for Industrial and Applied Mathematics

United Kingdom and Republic of Ireland Section (SIAM-UKIE)



SIAM-UKIE Newsletter

Number 11, December 2015

In This Issue

Date for the Diary: 5th SNSCC, May 27, 2016

The 5th SIAM National Student Chapter Conference (SNSCC) will be hosted by the [School of Mathematics, Cardiff University](#), Wales, on May 27, 2016. The event will feature plenary talks and parallel sessions for presentations by [Student Chapter representatives](#). The confirmed plenary speakers are [Prof. René de Borst](#) (Regius Chair of Civil Engineering and Mechanics, University of Glasgow, Scotland) and [Dr Julie Vile](#) (NHS Wales).

• Date for 5th SNSCC: May 27, 2016

• 2nd NUI Galway Student Conference

• Events Update

2nd NUI Galway SIAM Student Chapter Conference



The 2nd NUI Galway SIAM Student Chapter Conference was held on December 3, 2015. The conference brought together research students from several Irish Universities, including NUI Galway, University of Limerick, University College Dublin, Dublin

Institute of Technology, and Trinity College Dublin, and international students from UNINA (Naples), Politecnico di Torino (Turin) and Zhejiang University (China). The scientific programme consisted of two plenary talks and several student presentations on topics including: differential privacy, drug delivery, infectious disease modelling, solar collectors, geophysical waves, steel casting, and phase and precession evolution in the Burgers equation. The plenary speakers were [Prof. James Gleeson](#) (MACSI, UL), who discussed information contagion on social networks, and [Dr Dana Macey](#) (DIT) who presented her work on immunosensors and the dynamics of interdisciplinary collaborations. At the end of the conference, [Gary O'Keefe](#) (University of Limerick) was awarded the prize for the best student talk. This event was generously supported by SIAM, MACSI at the University of Limerick, the Stokes Cluster for Applied Mathematics, and the Mathematics Society at NUI Galway. — [Paul Greaney](#) (Secretary/Treasurer, NUI Galway Student Chapter)

AD 2016 —7th International Conference on Algorithmic Differentiation

The [7th International Conference on Algorithmic Differentiation](#) (AD 2016) will be held at Christ Church, University of Oxford, UK, on **September 12-15, 2016**. The conference is targeted at users of algorithmic differentiation (AD) from all application areas (optimization, inverse problems, uncertainty quantification), AD algorithm researchers, and AD tool developers. Advances since the last meeting in 2012 include: differentiation of piecewise-differentiable programs, embedding AD in domain-specific packages, and more extensive use of AD in applications outside of the mainstays of engineering and earth sciences, especially computational finance. Given the proximity of the venue to London's global financial centre, we intend to highlight the role of AD in computational finance. **Oral and poster presentations will be accepted based on 4-page extended abstracts with submission open from January 2016**. Papers based on accepted submissions may be submitted post-conference to a special edition of [Optimization Methods and Software](#) edited by Andreas Griewank. We thank SIAM and SIAM-UKIE for financial support. — [Dr Shaun Forth](#) (Cranfield University)

IMA Mathematics, Thursday 17 March 2016, Mary Ward House, London

[Mathematics 2016](#) is the 10th in the series of annual IMA conferences which aims to demonstrate to both mathematicians and non-mathematicians the many uses of modern mathematics. The invited speakers are as follows: [John Birkenhead](#) (HJC Actuarial Consultancy Limited), [Noel Ann Bradshaw](#) (University of Greenwich), [Peter Clarkson](#) (University of Kent), [Tracey Cool](#) (Rolls-Royce), [Sarah Hart](#) (Birkbeck College, University of London), [Chris Linton](#) (Loughborough University), [Nigel Peake](#) (University of Cambridge), [Nigel Steele](#) (Coventry University), and [James O'Donoghue](#) (NCTL). For further information please visit <http://tinyurl.com/Maths2016> — [Lizzi Lake](#) (Conference Officer)

Contributors: Paul Greaney (Galway), Des Higham (Strathclyde), Scott Morgan (Cardiff), Jennifer Scott (STFC-RAL), Editor: Angela Mihai

OUR CONGRATULATIONS



President-Elect of SIAM

Prof Nicholas Higham (Manchester)

January 1 - December 31, 2016



We invite nominations for
SIAM-UKIE Secretary/Treasurer April 2016 - March 2018
to be elected early in 2016.

Volunteers for hosting the 21th SIAM-UKIE Annual Meeting in 2017 are
very welcome.

FINANCIAL SUMMARY (31.VIII.2014-11.VIII.2015)

Previous balance (on 31.VIII.2014): £2,524.



INCOME

SIAM funding received: \$7,500 (£4,836.51)

Bank interest: £1.03

Total income: £4,837.54



EXPENDITURE

20th SIAM-UKIE Annual Meeting (Bath): £2,906.92

Sponsored Activities: £2,300

Total expenditure: £5,206.92



Balance on 11.VIII.2015: £2,154.61

PLANNED EXPENDITURE IN 2016

20th SIAM-UKIE Annual Meeting

Estimated organisation cost: £3,820

Travel expenses for SIAM Chapter representatives: £1,000

Total estimated cost: £4,820

Sponsorship

3 student presentation prizes the BAMC Meeting, University of Oxford,
April 5-8, 2016: £300

1 student presentation prize at the 7th International Conference on Algorithmic
Differentiation, University of Oxford,
September 12-15, 2016: £100

5th SNSCC, Cardiff University, May 27, 2016: £1,000

One SIAM speaker at the 8th YRMC, University of St Andrews, August 12-15, 2016: £600

Total estimated sponsorship: £2,000

SIAM funding received for 2016: \$7,400 (£4,773.14)