

SIAM UKIE ACTIVITIES REPORT 2015–2016

Background

The SIAM UKIE Section was formed in 1996 by the Society of Industrial and Applied Mathematics (SIAM) with the scope to promote and support applied and industrial mathematics in the UK and the Republic of Ireland.

Officers

The current SIAM UKIE officers are as follows:

President: Prof. Desmond Higham (University of Strathclyde, April 1, 2015–March 31, 2017;

Vice-President: Dr Jennifer Scott (STFC Rutherford Appleton Lab), April 1, 2015–March 31, 2017;

Secretary/Treasurer: Dr Stefan Güttel (The University of Manchester), April 1, 2016–March 31, 2018.

We thank Dr Angela Mihai for her contributions as Secretary/Treasurer of the Section until March 2016.

A list of past officers is available at <http://www.siam.org/sections/siamukie/archive.php>.

Members

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

Students

There are currently 11 SIAM UKIE Student Chapters at the following universities: University of Bath (England), University of Cambridge (England), Cardiff University (Wales), Heriot-Watt/Edinburgh Universities (Scotland), National University of Ireland Galway (Ireland), Imperial College London (England), University of Manchester (England), University of Oxford (England), University of Reading (England), University of Strathclyde (Scotland), University of Warwick (England).

The Section promotes and supports the founding of further student chapters. Most recently, members at the University of Leeds have signaled interest in founding a chapter and they are now collecting the required signatures.

All SIAM UKIE Student Chapters are very active, organizing their own local events and activities. Some examples taken from the newly created SIAM UKIE blog are (with clickable links in the electronic PDF version of this document):

- Organization of local annual conferences, for example, by the student chapters in Cambridge ([link](#)) with 5 invited speakers, Edinburgh ([link](#)) with 4 invited speakers, and Manchester ([link](#)) with 3 invited speakers.
- Launch of a “Maths Helpdesk” at the Imperial College SIAM Student Chapter, an interesting initiative aiming to bring together PhD students and researchers from different departments to share expertise and foster inter-departmental collaborations ([link](#)).
- An event within the Scottish Universities Insight Institute organized by the Strathclyde Student Chapter showcasing applications of mathematics and statistics in industry ([link](#)).
- The SIAM Sabisu Coding Challenge ([link](#)) and a Julia Programming workshop ([link](#)) organized for undergraduate students by the Manchester Student Chapter.

In addition to these activities, since 2012 each year one of the UKIE chapters has hosted an annual SIAM National Student Chapter Conference (SNSCC). These conferences allow students to interact across universities. The 5th SNSCC was organized by the Cardiff Student Chapter and held on May 27, 2016. This event was also reported on in detail:

<https://siamukie.wordpress.com/2016/05/30/5th-national-sc-conference/>.

Several Student Chapter representatives from the UK were invited by the SIAM Education Committee to present during the Student Days at the SIAM Annual Meeting (AN16) in Boston, Massachusetts, USA, 2016. One of the participating students wrote about his experience on:

<https://siamukie.wordpress.com/2016/07/18/cardiffs-perspective-of-siam-an16/>

Members of nine UKIE Student Chapters received SIAM Certificates of Recognition 2016. Their names were publicized on the SIAM UKIE blog:

<https://siamukie.wordpress.com/2016/06/15/sc-certificates-of-recognition/>.

Fellows

This year, three SIAM UKIE members Dwight Barkley (Professor of Mathematics at the University of Warwick), Endre Süli (Professor of Numerical Analysis at the University of Oxford), and Françoise Tisseur (Professor of Numerical Analysis at the University of Manchester) were elected SIAM Fellow.

New website, blog and social media activities

Since April 2016, the SIAM UKIE Section has had a new website at <http://maths.manchester.ac.uk/siam-ukie>, including a new WordPress blog <https://siamukie.wordpress.com>. Upon request Section members can be granted rights to publish their own SIAM UKIE relevant blog posts, including the possibility to upload photos, videos, and other multimedia content as appropriate. Each post is under editorial review and edited before publication. Also, since 2016, the Section has had its own Twitter account http://twitter.com/SIAM_UKIE. This account currently has 99 followers and is mainly used to draw attention to new blog posts and for retweeting UKIE relevant news.

Newsletter

The SIAM UKIE Section continues to maintain a bimonthly newsletter (first issued in April 2014). The format has slightly changed: since April 2016 the content is compiled from the most recent posts on the SIAM UKIE blog and sent out as a plain text email to all SIAM UKIE members. This combination of blog posts and emails has the advantage of being searchable locally and is more search engine friendly online. Our newsletters serve the purpose of “staying in touch” with our members and to further facilitate the dissemination of information among members from different areas in the UK and Republic of Ireland.

Annual Sectional Meeting

The 20th Anniversary Meeting of the UK and Republic of Ireland Section of SIAM was held on January 7, 2016 at the Department of Applied Mathematics and Theoretical Physics (DAMTP), University of Cambridge. The local organizer was Arieh Iserles. The event featured high-profile keynote and early career speakers, and poster presentations from Student Chapter representatives. The meeting concluded with an Anniversary Dinner held in the dining hall of Magdalene College. More details: <https://siamukie.wordpress.com/2016/04/06/20th-siam-ukie-meeting/>.

Other Sponsored Activities

In 2016, the Section contributed funding to the following scientific meetings:

- The British Applied Mathematics Colloquium (BAMC 2016), University of Oxford, April 2016. The Section sponsored three prizes for the best presentations by graduate students: <https://siamukie.wordpress.com/2016/04/12/student-prizes-at-bamc-2016/>
- Sponsorship of a SIAM speaker (Dr Jan Gutowski) at the Young Researchers in Mathematics Conference, University of St Andrews, August 2016.
- A sponsored SIAM Student Prize at the Algorithmic Differentiation conference (AD2016) held at University of Oxford, September 2016.

Planned Future Activities

The 21st SIAM UKIE Annual Meeting will be held on January 12, 2017 at the University of Strathclyde, where the local organization team is led by the current SIAM UKIE President Prof Des Higham: <https://siamukie.wordpress.com/2016/04/26/21st-annual-meeting/>.

The Annual Meeting will feature three high-profile keynote and three early career speakers, and poster presentations from Student Chapter representatives. The confirmed speakers are: Dr Marta M. Betcke (University College London), Dr Lyuba Chumakova (The University of Edinburgh), Prof Nick Higham (The University of Manchester), Dr Angela Mihai (Cardiff University), Dr Jeremy Morley (Ordnance Survey), Prof Sarah Waters (University of Oxford).

As in the previous years, the Section will invite every SIAM UKIE Student Chapter to delegate one student representative to this meeting, and we will offer some funding for the travel expenses of these delegates. In addition, there will be no registration fee for participating students, but all students will be encouraged to contribute a poster presentation.

The Section will continue to promote its aims by providing support for other initiatives and events that bring together SIAM (student) members from different fields in the UK and the Republic of Ireland, including:

- Three prizes for the best student talks/posters at the British Applied Mathematics Colloquium (BAMC), University of Surrey, April 10–12, 2017: <http://www.surrey.ac.uk/mathsbamc/>;
- Sponsorship for the 6th Annual SIAM National Student Chapter Conference, NUI Galway, May 2017: <http://www.maths.nuigalway.ie/SIAM-Galway/Conference2017/>;
- Three prizes for the best student talks at the Biennial Numerical Analysis Conference in Strathclyde, June 27–30, 2017: <http://numericalanalysisconference.org.uk/>;
- Two student prizes at the SciCADE International Conference on Scientific Computation and Differential Equations, University of Bath, September 11–15, 2017: <https://sites.google.com/site/scicade2017/>;
- Sponsorship of one SIAM speaker at one scientific meeting, as requested.

New Elections

New elections for SIAM UKIE President and Vice-President will be held at the beginning of 2017.

Prof. Des Higham (President)

Dr Jennifer Scott (Vice-President)

Dr Stefan Güttel (Secretary/Treasurer)

September 19, 2016