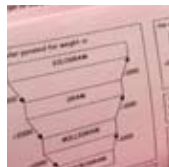


centre for excellence  
**sigma**  $\Sigma$   
in mathematics & statistics support



# sigma network 2010/11

# more than the sum of the parts



# building the **sigma** network

We are living in interesting times. The new funding regime that is being introduced places a new emphasis on the support offered to students when they are at university.

This gives the providers of mathematics and statistics support an exciting opportunity to develop their provision and to embed it in the institutional support structures within their universities. As such, it is an opportune time to establish a community of practice for mathematics and statistics support practitioners – a network in which to share experiences and resources, receive guidance and work together for the benefit of the whole student community.

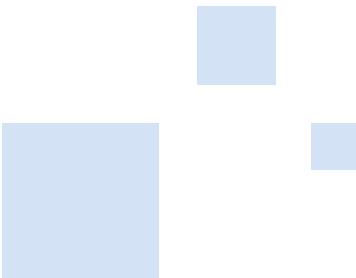
Following on from the very successful **sigma** CETL programme, the **sigma** network project was officially launched in July 2010. Funded through the National HE STEM Programme and part of the Mathematical Sciences strand managed by the Institute of Mathematics and its Applications (IMA), the **sigma** network project is focussing on disseminating good practice and information and stimulating the wider development of mathematics and statistics support provision based upon collaboration and the sharing of ideas. As such there are key elements of the CETL programme that are continued and further developed under the **sigma** network, including the provision of



**sigma** network directors Prof Tony Croft and Prof Duncan Lawson

pump-priming funding to universities to stimulate the development of mathematics and statistics support within their institutions, the widening of the hub pilot scheme to cover all of England and Wales and continued support for the annual CETL-MSOR conference. In addition, we have continued the **sigma** award scheme for outstanding contribution to the field of mathematics and statistics support as we believe it is vital to recognise the hard work and effort of colleagues in this important field.

As well as continuing previous good practice, the **sigma** network is keen to provide as much strategic support to the community as it can. To do this, we have begun work to develop an evaluation framework that can be used by the community; we have developed a training course for postgraduate students who provide mathematics and statistics support; we run resource development workshops which provide colleagues with dedicated time and space to develop resources for use by the whole community; and, we are piloting an innovative project to support part-time students in their workplace.



# enabling new mathematics support provision

The CETL<sup>1</sup> pump-priming funding initiative led to the establishment of successful support centres at Leeds, Bath and Sheffield Universities. Each of these initiatives has become embedded into the Universities' respective Teaching and Learning strategies and continues to be internally funded.

The National HE STEM programme saw this approach as an effective way of stimulating the development and adoption of student support. **sigma**, following a competitive funding call, has provided similar funding for five more support centres at the Universities of York, Lincoln, Kent, Central Lancashire and London Metropolitan University. The different institutional environments and their plans for continuing provision in the future have resulted in slightly different approaches being adopted. The centre at the University of Kent is staffed by postgraduate students, York

has established a drop in service and at London Metropolitan the emphasis is on one-to-one appointments. At Lincoln, John Flynn established the support centre in the University Library and although John left in July, the Centre continues to have strong support from senior management.

As a result of this **sigma** funding, over 700 additional students have been supported in the past year. Each centre is working hard to ensure that student support continues beyond July 2012 when **sigma** funding will end. Current activities include securing better premises, gaining support from Teaching and Learning Committees and of course raising the visibility of their work.

*John Flynn,  
University of Lincoln*



*Mathematics support in action at York*



*Allia Wilson and her team at the University of Kent*



<sup>1</sup> CETL: **sigma** was a HEFCE-funded Centre for Excellence in Teaching and Learning

# supporting colleagues across the country

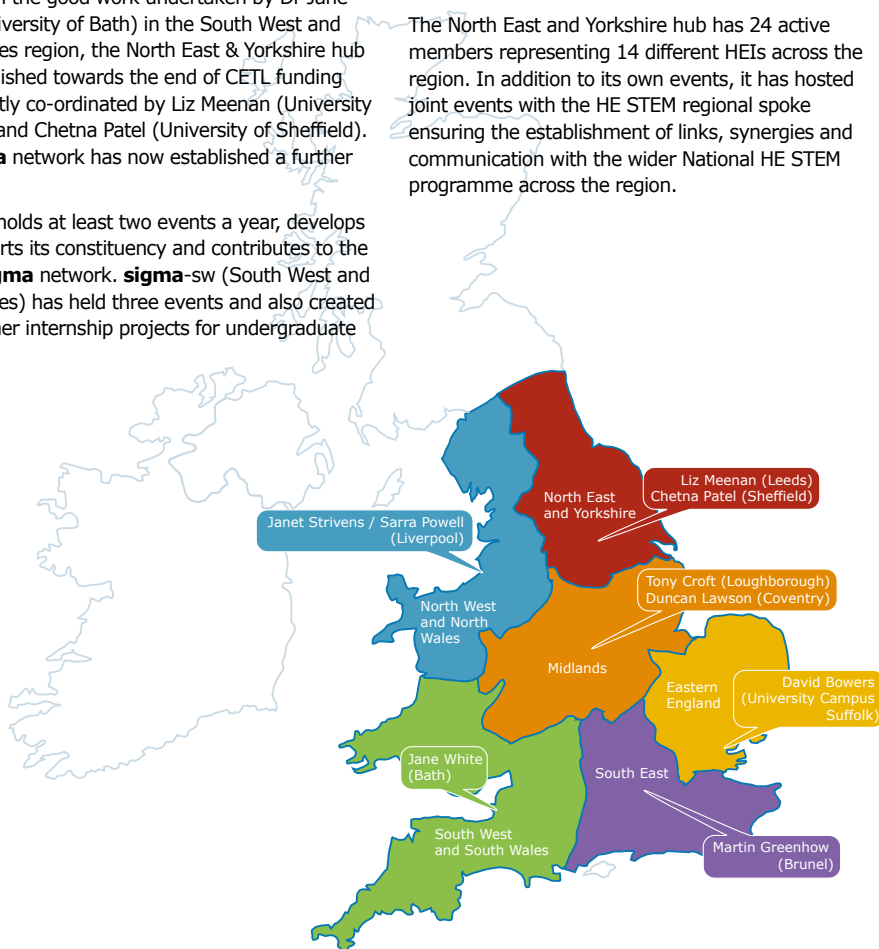
**sigma** CETL's successful regional hub pilot scheme has been developed into a wider Hub Network covering England and Wales.

Building on the good work undertaken by Dr Jane White (University of Bath) in the South West and South Wales region, the North East & Yorkshire hub was established towards the end of CETL funding and is jointly co-ordinated by Liz Meenan (University of Leeds) and Chetna Patel (University of Sheffield). The **sigma** network has now established a further 4 hubs.

Each hub holds at least two events a year, develops and supports its constituency and contributes to the central **sigma** network. **sigma-sw** (South West and South Wales) has held three events and also created five summer internship projects for undergraduate

students across five member institutions. Although each project is individual, all interns support each other through regular meetings and progress reporting. The students will be presenting the results of their projects as well as their reflections on the process at this year's CETL-MSOR Conference.

The North East and Yorkshire hub has 24 active members representing 14 different HEIs across the region. In addition to its own events, it has hosted joint events with the HE STEM regional spoke ensuring the establishment of links, synergies and communication with the wider National HE STEM programme across the region.



*Joint HESTEM-sigma  
event at the  
University of Leeds*



*Eastern  
England Hub  
event*



*Breakout group at the  
NW2 launch event*

The South East hub is run by Martin Greenhow from Brunel University and was supported for much of the year by Kerry Schutz of the West London Lifelong Learning Network. Kerry retired in early summer and **sigma** would like to thank her for all of her help and support during the hub's establishment. Events have taken place at universities around the region including, most recently, a workshop at Bucks New University on the theme: Supporting student learning in maths, stats and numeracy.

The North West and North Wales hub is co-ordinated by Sarra Powell (University of Liverpool) and currently has a network of 32 members drawn from 12 HEIs in the region. Over twenty members attended its launch meeting at Manchester Metropolitan University in April 2011. The hub has created its own logo to help brand its events.



David Bowers (University Campus Suffolk) coordinates the Eastern England hub which has built and maintains active links with 10 of the 13 universities in the region. Its meeting in June also attracted delegates from 8 universities outside the region. One of its first achievements was the creation of a resource wiki <http://sumswokshopwiki.pbworks.com> This is effectively a 'swap shop' of ideas where hub members can share links to resources to support students and post 'wishes' for resources that they want but cannot find.

# supporting the community of practice

Throughout the past year **sigma** has worked to support the needs of the community as well as to achieve its specific project objectives. Activities undertaken include:

## Postgraduate Training Workshop

Increasingly, support centres are employing postgraduate students to offer one-to-one and small group help to students who drop in for assistance.

**sigma** has offered a one-day workshop for these postgraduates that reflects the differences between the help provided in support centres and that provided in traditional tutorials for which the postgraduates may well have already had some training.

The workshop was successfully run at Loughborough University in November 2010 and at Cardiff University in February 2011. As there is a clear demand for this type of provision within the community, the delivery team is finalising a good practice booklet that can be used by others to run similar workshops.

### *PG workshop at Loughborough*



## sigma Prizes for Outstanding Achievement

This is the third year that **sigma** has provided awards for those involved in activities that support and enhance students' learning of mathematics and/or statistics (as they occur in many disciplines) in higher education.

The 2010 prizes were presented at the CETL-MSOR Conference held in Birmingham on 6th and 7th September 2010. Dr Christie Marr from the University of St Andrews received the Outstanding Contributor award and Dr Ciarán Mac an Bhaird from the National University of Ireland, Maynooth was presented with the Rising Star award. The winner of the Outstanding Contributor prize for 2011 is Liz Meenan from the University of Leeds and the Rising Star prize has been awarded to Dr Inna Namestnikova from Brunel University. The awards will be presented at a ceremony to be held at the CETL-MSOR Conference in Coventry University on 5th and 6th September 2011 (<http://mathstore.ac.uk/conference2011>).



*Dr Ciarán Mac an Bhaird, Prof Duncan Lawson and Prof Tony Croft at the CETL-MSOR Conference 2010*





*Resource Development Workshop at Coventry*

## Resource Development Workshop

The initial three day resource development workshop was held at Coventry University in June 2011. Eight delegates worked together in pairs based on their interests, producing resources that had been planned in advance. Those attending found the dedicated time and space invaluable in translating their ideas into useable resources. Peer review is currently underway of all resources developed at the workshop and these will be made available more widely in the coming weeks through the Community pages on [www.mathcentre.ac.uk](http://www.mathcentre.ac.uk). Given the success of this event, **sigma** plans to hold a similar event in 2012.

## Evaluating the effectiveness of mathematics support

A well attended workshop was held on the 11th February 2011 to discuss the challenges in measuring the effectiveness of support provisions. As a result of this **sigma** created a working group to investigate the development of a common approach to measuring the effectiveness of support services that could be used by the community. The first stage of this process is the collation of evaluation questionnaires from centres across the country that will be made available on the network website.

*Dr Birgit Loch visiting Loughborough University's Mathematics Learning Support Centre*



*Our visitors from Gothenburg*



*sigma outstanding contributor 2011, Liz Meenan, University of Leeds*



*sigma rising star 2011, Inna Namestnikova*

## Supporting colleagues from around the world

**sigma** continues to support colleagues internationally. It provides resources, information and support to the All Ireland Mathematics Support Network and the Scottish Mathematics Support Network. In addition, **sigma** welcomes visits from those who are keen to see established mathematics support provision in action. This year visitors have included Tim Crawford from Queens University Belfast, Tommy Gustafsson and Samuel Bengmark from Chalmers University of Technology, Gothenburg, Sweden, and Dr Birgit Loch from Swinburne University of Technology, Melbourne, Australia.

# mathcentre

The backbone of resources for supporting the mathematics support community continues to be the mathcentre website. From this very popular, open-access site, staff and student users can watch video tutorials, undertake on-line practice exercise and download hundreds of help booklets and leaflets. Staff have access to Key Reports, Guides and audits of mathematics support provision.

The mathcentre website  
[www.mathcentre.ac.uk](http://www.mathcentre.ac.uk)



**sigma** is funded by the national HE STEM programme



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