

Joint Mathematical Council of the United Kingdom

Annual Report for 2014

This report is for the calendar year 2014 (as required by article 10.2(a) of the JMC Constitution) with supplementary information for the period from 1 January to 30 September 2015.

Membership

Those asterisked were members of the Executive Committee.

	2014		2015
	1 Jan – 11 Nov	11 Nov – 31 Dec	1 Jan – 30 Sep
Officers			
Chair	Tim Rowland*		
Honorary Secretary	Peter Thomas*		
Honorary Treasurer	Paul Harris*		
Participating Societies			
	Representative		
Adults Learning Mathematics (from 10 Mar 2015)	–		Jeff Evans
Association of Mathematics Education Teachers	Ros Hyde	Ros Hyde*	
Association of Teachers of Mathematics	Sue Pope*		
British Society for Research into Learning Mathematics	Hilary Povey	Hilary Povey*	
British Society for the History of Mathematics	June Barrow-Green		
Conference of Heads of Departments of Mathematical Sciences	David Arrowsmith* (to 24 Apr) / Catherine Hobbs (from 24 Apr)	Catherine Hobbs	
Edinburgh Mathematical Society	Colin Campbell (to 17 Oct) / David Pritchard (from 17 Oct)	David Pritchard	
Institute of Mathematics and its Applications	Chris Sangwin	Chris Chipperton	
London Mathematical Society	Alice Rogers		
The Mathematical Association	Alison Clark-Wilson (to 15 Apr) / Peter Ransom (from 15 Apr)	Peter Ransom	
Mathematics in Education and Industry	Charlie Stripp		
National Association for Numeracy and Mathematics in Colleges	Sally Barton*		
National Association of Mathematics Advisers	Alice Onion		
National Numeracy (from 17 Jun 2014)	Lynn Churchman		
National STEM Centre	Stephen Lyon		
NRICH representing the Millennium Mathematics Project	Lynne McClure* (to 31 Oct) / Charlie Gilderdale (from 1 Nov)	Charlie Gilderdale	
Operational Research Society	Louise Orpin (later Louise Allison) (to 27 Oct) / Charlene Timewell (from 27 Oct)	Charlene Timewell	
Royal Academy of Engineering	Rhys Morgan		
Royal Statistical Society	Olivia Varley-Winter	Olivia Varley-Winter (to 6 Feb) / Neil Sheldon (from 6 Feb)	
United Kingdom Mathematics Trust (from 11 Nov 2014)	–	Bill Richardson	
Wales Institute of Mathematical and Computational Sciences	Stephen Williamson		

Co-opted Members			
UK Representative to the International Commission on Mathematics Instruction	Chris Budd		
Executive Secretary (25 Feb 2014 to 31 Jul 2014) / Former Executive Secretary (1 Aug 2014 to 11 Nov 2014) / BCME Committee Chair (from 11 Nov 2014)	David Martin		
JMC International Representative (until 11 Nov 2014)	Ros Sutherland	–	
Observing Societies	Representative		
Advisory Committee on Mathematics Education	Robert Barbour		
Adults Learning Mathematics (until 10 Mar 2015)	Jeff Evans		
Department for Education [England]	Stephen Rogers		
Department of Education [Northern Ireland]	Nick Todd		
Education Scotland	Fiona Robertson		
The Higher Education Academy	Mary McAlinden (to 27 Jul) / John Craig (from 28 Jul)	John Craig	John Craig (to 30 Jun 2015) / Roger Brooks (from 1 Jul 2015)
National Centre for Excellence in the Teaching of Mathematics	Jane Imrie		
National College for Teaching and Leadership	James O'Donoghue		
Office for Standards in Education	Jane Jones		
The Office of Qualifications and Examinations Regulation	Janet Holloway		
The Royal Society	Juliet Upton (to 31 Jul) / David Montagu (from 1 Aug)	David Montagu	
School Mathematics Project (until 11 November 2014)	(vacancy)	–	
Sector Skills Council for science, engineering and manufacturing technologies in the UK (until 5 March 2015)	John Harris (to 10 Aug) / Elinor Wallace (from 11 Aug)	Elinor Wallace	
United Kingdom Mathematics Trust (until 11 November 2014)	Bill Richardson	–	

Note

Dylan Jones of the Department for Education and Skills [Wales] is invited to meetings and receives papers.

Executive Secretary

David Martin acted as Executive Secretary until 31 July 2014 when the position was discontinued; the JMC is very grateful to him for the work he has done on its behalf. Until 31 March 2014, the JMC received financial support from ACME for this position; the JMC is very grateful for that support.

Meetings

2014 The Council met on 25 February 2014 and 17 June 2014; meetings of the Executive Committee preceded the Council Meeting. The Annual General Meeting and a further Council meeting were held on 11 November 2014 with a meeting of the Executive Committee on 10 November 2014. The Executive Committee held an extraordinary meeting on 10 April 2014 to review the JMC's governance and practices following the cessation of financial support for the position of Executive Secretary. All meetings were held at the Royal Statistical Society in London, apart from the Executive Committee meetings on 10 April 2014 (at the Centre for Mathematical Sciences, Cambridge) and 10 November 2014 (at International Hall, London).

25 February 2014 The Council agreed arrangements for the Bursaries Committee for bursaries for ICME13 in 2016.

The afternoon discussion was led on behalf of ACME by Robert Barbour. It looked at *The Medium-Term Perspective* and sought to inform ACME's attempt to be less reactive and more proactive, assisting in determining the agenda for its future activity. This discussion took the place of the customary November ACME-led discussion which had been displaced by the fiftieth anniversary celebration.

17 June 2014 National Numeracy was admitted as a Participating Society. Paul Harris was elected unopposed to serve for a further term as Honorary Treasurer from after the AGM in 2014 to that in 2017. Council was informed that the Executive Committee would bring forward proposals for the JMC to become a Charitable Incorporated Organisation and that the JMC had taken out insurance cover for its activities. It was agreed to hold an open call for the Chair of the BCME Committee (which will prepare for BCME9 in 2018). Following the open call, David Martin was appointed by the Executive Committee as Chair of the BCME Committee.

The afternoon session began with a presentation by Roger Porkess on his report *A world full of data* which was funded by the Institute and Faculty of Actuaries and the Royal Statistical Society. The report considered the statistics present in A Level subjects other than mathematics. He stressed the prevalence of statistics and the gap between how statistics is experienced in mathematics in school and the needs beyond. There was then a second presentation by Vinay Kathotia on *The Mathematics-Related Work of the Nuffield Foundation*. He described the many projects in mathematics education which the Nuffield Foundation had carried out, from Nuffield Primary Mathematics which began in 1964 to the latest project on Applying Mathematical Processes.

11 November 2014 At the Annual General Meeting, it was resolved that 'the Council shall seek to become a Charitable Incorporated Organisation, thereby incorporating it (so it may enter into contracts in its own name rather than those of its trustees), giving it the protection of limited liability (rather than the unlimited joint and several liability borne currently by its trustees) and the status of a registered charity.' It was also resolved:

That article 11 of the constitution which presently reads

The Council shall have power to change this Constitution provided that:

- (a) any motion of annulling, altering or adding to any section shall be considered at an Annual General Meeting or a meeting called specially for that purpose;
- (b) notice of such a motion shall be given, together with the notice convening the meeting, not less than three months before the date of the meeting;
- (c) the terms of the motion shall be given in full in that notice;
- (d) the motion shall be supported by two-thirds of the members present and voting at the meeting concerned.

shall from end of this Annual General meeting read:

The Council shall have power to change this Constitution provided that:

- (a) any motion of annulling, altering or adding to any section shall be considered at an Annual General Meeting or a meeting called specially for that purpose;
- (b) notice of such a motion shall be given, together with the notice convening the meeting, not less than one month before the date of the meeting;
- (c) the terms of the motion shall be given in full in that notice;
- (d) the motion shall be supported by two-thirds of the members present and voting at the meeting concerned.

This change was made to expedite constitutional changes necessary to become a CIO.

The Annual General Meeting was followed immediately by the Council meeting. The United Kingdom Mathematics Trust, previously an Observing Society, was admitted as a Participating Society. The final report on BCME8, from the outgoing Chair of the BCME Committee, James Nicholson, and the first report of the incoming Chair, David Martin, were discussed; the Council reaffirmed its intention of working with ATM and the MA in organising BCME9. The Council decided to write to Ofqual to express its concern at the lack of comparability between the GCSE Mathematics specifications that it had accredited.

The afternoon discussion was organised by ACME and was International Lessons and Engagement in Mathematics Education, particularly the Maths Hubs International Programmes. Robert Barbour introduced the session. Charlie Stripp then spoke about the primary teacher exchanges through the Maths Hubs with teachers in Shanghai which had been taking place since 2013 and were motivated by the high performance of Shanghai in PISA. As well as describing this work, he spoke about the development of a mastery curriculum and NCETM's work on textbooks.

2015 The Council met on 10 March 2015 and 16 June 2015; meetings of the Executive Committee preceded the Council Meeting. All meetings were held at the Royal Statistical Society in London.

10 March 2015 A Special General Meeting was held immediately before the Council meeting to approve the accounts for 2013/14 which it had not been possible to present to the Annual General Meeting.

At the Council meeting Adults Learning Mathematics, previously an Observing Society, was admitted as a Participating Society. The Council considered developments relating to the new GCSEs in Mathematics in England, and progress with arrangements for bursaries for ICME13 and with the preparations for BCME9.

In the afternoon session Carol Copstick (Senior Education Officer) from Education Scotland gave a presentation on the Scottish Survey of Literacy and Numeracy, which was a joint survey by the Scottish Qualifications Authority and Education Scotland. Surveys were carried out of children in Primary 4, Primary 7 and Secondary 2 in 2011 and 2013, they were asked mathematical questions and questions about their experience of learning mathematics; questions were also asked of teachers of mathematics and other subjects. Carol Copstick also spoke about the professional development resources which Education Scotland had developed to support teachers.

16 June 2015 The Council endorsed the A Level Mathematics Advisory Board as an independent body in good standing with the JMC and enjoying its support. The Council gave further consideration to developments relating to the new GCSEs in Mathematics in England, and progress with arrangements for bursaries for ICME13 and with the preparations for BCME9. The Council also discussed the emerging findings from ACME's Initial Teacher Education project.

In the afternoon there was a presentation and discussion on the work of the National STEM Centre by Gill Collinson, Head of the National STEM Centre, and Stephen Lyon, its mathematics specialist. The presentation covered the centre's key priorities, how it supported teaching and learning. The discussion focussed on the relationship between STEM as a whole and mathematics.

BCME Committee

The eighth British Congress of Mathematics Education (BCME8) was held on 14–17 April 2014 at the East Midlands Conference Centre, University of Nottingham. The BCME Committee which organised this event in collaboration with ATM and the MA was chaired by James Nicholson. The JMC is very grateful to him and to all whose efforts made the event such a notable success. There were 466 delegates registered who were able to hear three plenary lectures (by Lord Winston, Jill Adler and Malcolm Swan) as well as attend many talks, presentations and workshops, including a research strand organised by BSRLM.

Following an open call, David Martin was appointed in September 2014 as Chair of the BCME Committee until BCME9 in 2018. Further open calls were made in the autumn of 2014 for the positions of Secretary and Treasurer of the BCME Committee; in January 2015 Peter Ransom was appointed as Secretary of the BCME Committee and in May 2015 Paul Metcalf was appointed as Treasurer of the BCME Committee. Communications, Programme and Venue Committees have been established, as well as a Reference Group involving all Participating Societies. A Memorandum of Understanding is being negotiated with ATM and the MA.

Working Groups

There were no Working Groups during the period from 1 January 2014 to 30 September 2015.

ACME

The JMC has continued to interact strongly with the Advisory Committee on Mathematics Education, to mutual benefit. In addition, JMC is represented formally by its Chair, or his deputy, at the termly ACME meetings when the DfE is present. At its June meeting each year, the Executive Committee was joined for the second part of its meeting by representatives of ACME to discuss ACME's Annual Report. JMC also carried out its usual functions in respect of appointment of new members to ACME and review of publications.

The Royal Society is reviewing the governance arrangements for ACME in discussion with JMC. It is intended that a memorandum of understanding between The Royal Society and JMC concerning the governance of ACME will be agreed.

Representation

Joint Ministerial STEM Advisory Group The JMC is represented on this group by the Chair (or his deputy). Meetings of the group were co-chaired by ministers from BIS and DfE.

ACME: A Level Discussion Meeting Peter Thomas represented the JMC at this meeting on 28 August 2014.

AQA Stakeholder Reference Group for GCSE Mathematics Reform David Martin was the JMC's representative on this group which met from February to April 2014.

Bowland Trust Seminar: What can we learn from Japan about professional development for mathematics teachers? Ros Hyde represented the JMC at this meeting on 1 December 2014.

Council for Subject Associations The JMC joined the CfSA on 28 April 2014 and is represented on it by Alison Clark-Wilson.

DfE roundtable on a campaign to promote maths, the sciences and engineering The Chair represented the JMC at this meeting held on 23 April 2014.

The Higher Education Academy: Mathematical transitions report launch Peter Thomas represented the JMC at this meeting on 23 June 2014.

NCETM Advisory Group The JMC is represented on this group by its Chair but it has not met during the period of this report.

National Maths Hubs Forum Tony Cotton represented the JMC at the first meeting of the forum on 18 June 2014; subsequently Lynne McClure has been the JMC's representative on the forum.

Meeting with the new head of the National STEM Centre The Executive Secretary met with Gill Collinson on 28 February 2014.

Numeracy Forum Sally Barton has been the JMC's representative on the forum since its first meeting on 2 December 2013.

Meeting with Ofqual GCSE Mathematics The Chair, Margaret Brown and Sue Pope met on 10 February 2014 with Glenys Stacey (Chief Regulator) and Janet Holloway (Head of Reform) to discuss the JMC's concerning the development of the new GCSEs in Mathematics.

Ofqual A Level Mathematics Working Group Sue Pope and Peter Thomas were the JMC's representatives on this group which met from 16 April 2015 to 6 July 2015.

OCR Mathematics Consultative Forum The JMC is represented on the forum by David Martin.

Websites

The JMC's website and electronic document archives have for many years been hosted by the Open University; the JMC is very grateful to the OU and its staff for this support. At its meeting on 10 April 2014 the Executive Committee decided that the JMC should manage its website directly to allow for the more frequent and rapid updating of content. New websites have been established at www.jmc.org.uk and, for BCME, at www.bcme.org.uk. The document archives continue to be hosted by the OU.