



February 2017

Dear Member

Euler Prize for Honorary Member, Ian Stewart

The Mathematical Association congratulates Professor Ian Stewart on being awarded the MAA Euler Book Prize for the year's best book in mathematics. The award was made in early January at the Joint Mathematics Meetings of leading mathematicians in Atlanta, Georgia and the book which the judges acclaimed is *In Pursuit of the Unknown: 17 Equations That Changed the World*, a series of seventeen essays, each on a different equation that has had an impact on the development of mathematics or the world it describes.



Ian Stewart is Emeritus Professor of Mathematics at the University of Warwick and in recognition of his lifelong contribution to mathematics (especially non-linear dynamics) and its understanding, he was elected an Honorary Member of The Mathematical Association in 2016.

2017 Mathematical Association Annual Conference 7-9 April, Royal Holloway College, Egham

If you've not already got your application in for this year's Annual Conference, then now's the time to do it. The programme, and fees, are available at <http://www.m-a.org.uk/annual-conference>, together with support for getting funded by your school or college. Primary Special Day 8 April; Further Maths Day 9 April; Teaching and Learning with Technology strand throughout; build your teaching for the new curricula 5-18. Join us for this lively and inspiring conference, with its good company, civilised surroundings and hands-on mathematical recharging! Discounts available for beginner teachers, for groups of 4 or more booking together (they don't have to be from the same school/college), for personal members early in their career or new to conference.

Annual General Meeting

The Annual General Meeting of The Mathematical Association will be held at 6.45 pm on Friday 7th April in the Windsor Building, Royal Holloway University of London, Egham. Reports will be received from the Chair of Council, Peter Ransom, and the Treasurer, Bill Richardson.

Council's nominees for election are Peter Ransom as Chair of Council, Chris Pritchard as Secretary, David Miles as Treasurer, Bill Richardson as Editor-in-Chief, Cherri Moseley as Chair of Conferences, Michael Fox as Chair of Publications and Joyce Brown as Member without Office. Council proposes an increase of two in the number of Members without Office, so there will be an opportunity for Council to co-opt to these roles, as well as to Chair of Membership and Chair of Publicity and Media: please consider if you would like to contribute to the Association in such a way.

Should any member of the Association have an item for discussion under AOB, this should be sent by email to this year's AGM Chair, Dr. Jennie Golding at j.golding@ucl.ac.uk and to senioradministrator@m-a.org.uk by noon on Tuesday, 4th April 2017.

MA Branch Events

Upcoming events at MA branches include:

Birmingham

(Birmingham University, 11 March, 9.30 for 10.00, finish 1.00)

Peter Griffin – The symbols and the symbolised

Cambridge (Centre for Mathematical Sciences, 22 March, 5pm-6.30pm)

Andrew Jeffrey – Myths around Mastery

Exeter (Exeter Maths School, 15 March, 6.30pm for 7pm start)

Dr Chris Pritchard - Binary Problems and Investigations

Gloucester (Cheltenham Ladies College, 23 March, 7.30pm)

Dr Vicky Neale – Prime Numbers

Liverpool (Venue tbc, 16 March, 5.30pm)

Declan Davis – From arithmetic to modern cryptography

Meridian (Christchurch Gardens, Reading, 11 March, 9.30am – 12.30pm)

Peter M Neumann's Informative and Entertaining Topics

Sussex (Roedean School, 13 March, 4.30pm)

Branch Committee – Annual Problem Drive

Yorkshire (Leeds University, 11 March, 1.30pm for 2pm)

Colin Prestwich – Problem Solving, so what is new?

Yorkshire (Leeds University, 29 March, 2.15pm for 2.30pm)

Dr Vicky Neale – How to Solve Equations

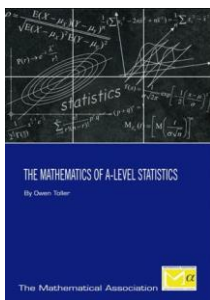
Further details of all these events are on the MA website.

Congratulations to all the pupils who sat the PMC Bonus Round

Pupils who sat the PMC Bonus Round on 1 February will be pleased to know that the OMRs are being marked. The scores will be moderated on 28 February and the results notified in early March (www.primarymathschallenge.org/).



The Mathematics of A-level Statistics by Owen Toller



The aim of this book is to present, in as simple a form as possible, the mathematics behind various results used in the statistics units of A-level mathematics and further mathematics. It's believed that many teachers and advanced students will welcome the chance to see just what is behind the various theorems and formulae. Use this code **STATISTICS10** to receive 10% off A-Level Statistics. Shop at <http://members.m-a.org.uk/Shop/product/78>

PROMYS Europe 2017 (9 July to 19 August): Call for applications

PROMYS Europe, a challenging six-week residential summer programme at the University of Oxford, is seeking pre-university students from across Europe who show unusual readiness to think deeply about mathematics. The programme is designed to encourage mathematically ambitious students who are at least 16 to explore the creative world of mathematics. Participants tackle fundamental mathematical questions within a richly stimulating and supportive community of fellow first-year students, returning students, undergraduate counsellors, research mentors, faculty, and visiting mathematicians. There are also talks by guest mathematicians. The application and application problem set (<http://www.promys-europe.org/programme/application>) are

available on the PROMYS Europe website (<http://www.promys-europe.org/>).

Bright but poor (PISA)

The term 'bright but poor' refers to children who perform in the top 10% whilst belonging to the bottom 10% on the socio-economic spectrum. John Jerrim of UCL has looked in detail at the 2015 PISA data and has some encouraging news for England but rather worrying news for the rest of the UK. Some of his findings are given by Richard Adams (of the Guardian online) at www.theguardian.com/education/2017/feb/09/bright-but-poor-students-uk-years-behind-better-off-peers-study-claims.

Westminster Forum Conference: Reforms to Mathematics qualifications: new A-levels and the future of Mathematics provision post-16

Central London, Tuesday, 25 April (please note the change of date)

This CPD-certified event is timed to follow the publication of Sir Adrian Smith's review into the potential for improving the quality and increasing the scale of the study of maths from 16 to 18, and will consider next steps for reforming maths qualifications post-16. Sir Adrian and a senior figure from the DfE will be in attendance to make presentations. In addition:

- There will be opportunities to discuss whether maths should be made compulsory to age 18, the appropriate mathematical skills for the future workforce, and how barriers to increased provision and the take-up of maths post-16 can be overcome, including teacher supply and financial constraints.
- The implementation of the new Mathematics A-levels will also be discussed, following the publication of specifications and ahead of the start of teaching in September 2017. Attendees will assess the impact of the new linear structure of the A-levels, as well as their altered emphasis and content.
- There will be sessions to consider how to tackle teacher recruitment and retention, as highlighted by the recent AoC and TES survey and the additional demands on the profession posed by the proposals for students failing to achieve a 'good pass' at GCSE to retake the exams.

Further information at:

www.westminsterforumprojects.co.uk/conference/maths-reform-2017

IMA Website

Over the past year the IMA have been working on a redesign of its website, and it will be launched by the end of February. The new site will have an updated mobile friendly appearance, an improved search function, and updated software for displaying mathematics.

Do monkeys understand probability?

In an online article at Plus Magazine, Marianne Freiberger reports on research on the most elemental feel for probability, not just in infants but also among apes and monkeys. She refers to findings which overturn our previous understanding that an intuitive grasp of chance in humans emerges only at about age seven and finishes by referring to a new study on capuchin monkeys. See <https://plus.maths.org/content/monkeys-play-peanut-lottery>.

Compiled by Chris Pritchard, MA Secretary