



MATHEMATICAL EDUCATION ON MERSEYSIDE

Registered Charity No. 517028

ORBITER

2017
JANUARY

MEM Orbiter can be downloaded free of charge from www.mathsmerseyside.org.uk/

Liverpool Mathematical Society (LivMS)

Popular lectures suitable for everyone Year 11 and up:

Thursday 02 February 2017

Liverpool Hope University
EDEN Building, L16 9JD



Image courtesy of www.freepik.com

'Islamic tilings and their symmetries' Balazs Szendroi

Decorative art in the Islamic world often takes the form of geometric patterns that exhibit interesting symmetries. The talk will discuss the relationship between art and pure mathematics through the example of Frieze Patterns, and the related notions of wallpaper and crystallographic patterns. There will be lots of pictures!

Details: http://www.livmathssoc.org.uk/cgi-bin/sews.py?Event_20170202_Popular_Lecture

Thursday 16 March 2017
University of Liverpool
Mathematics Building L69 7ZL



'From arithmetic to modern cryptography: a guided tour'

Declan Davis

Cryptography is the area of Mathematics that deals with keeping information secret and safe, and has an ever more important role to play in an increasingly digital world. This talk will introduce the ideas of modular arithmetic, finite fields and elliptic curves; and explore how these areas of Pure Mathematics are used by billions of people every day to keep their information safe.

Details: http://www.livmathssoc.org.uk/cgi-bin/sews.py?Event_20170316_PopularLecture

Both events above are 5:30PM to 6:30PM

No tickets. Free admission to all students and full members of LivMS

Others £4.00 payable on the door.

MEM Challenge & Senior Challenge, LivMS Open Challenge

Copies of these **take-home competitions** for pupils in **Y7/8** (Challenge), **Y9/10** (Senior Challenge), and **Age 18 and under** (Open Challenge) will be mailed directly to Heads of Maths in all secondary schools by 31 January 2017, and can be **downloaded** from the websites below. They should be made available to pupils over **February half-term 2017**. Participation is **FREE**.

Further details at www.mathsmerseyside.org.uk/ and www.livmathssoc.org.uk/

UTC Y8/9 Masterclasses

The 3rd Series of joint Mathematics and Science Clubs will take place from January to July 2017. For full details and how to apply visit

www.mathsmerseyside.org.uk/UTC_Masterclasses.html

MEM Y8/9 Masterclasses

The 26th Series was attended by 49 pupils from 29 schools. Venues for the 5 sessions included in turn the campuses of all 3 Liverpool-based universities.

www.mathsmerseyside.org.uk/



Bursaries are available (£50 to £500) through the LivMS **Bursary Fund** (charity number 1156909) for teachers, student teachers and pupils. The next deadlines are 31st January 2017 and 31st May 2017.
www.livmathssoc.org.uk/

Workshops for Y12/13

Year 12/13 after school problem-solving workshops, Contact Martin Bamber, mbamber@liv.ac.uk

Join LivMS for details see www.livmathssoc.org.uk/ Membership

FunMaths Roadshow is now available in English and Welsh versions. For more details and to order go to www.livmathssoc.org.uk/ and click on FunMaths Roadshow.

LivMS Sixth Form Pop Maths Quiz



The 13th annual Quiz will be held on **Saturday 11 March 2017**
Liverpool John Moores University
Byrom Street Campus
10:00AM to 2:00PM

This is a team competition which runs a bit like a Pub Quiz but without any alcohol! Prizes are awarded on the day.

Details and application forms are now available at:
www.livmathssoc.org.uk/

The Pop Maths Quiz is sponsored by Liverpool John Moores University, and WH Smith.

Contact MEM

www.mathsmerseyside.org.uk/

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