



MATHEMATICAL EDUCATION ON MERSEYSIDE

Registered Charity No. 517028

ORBITER

2024

JANUARY

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

[MEM on Twitter](#)

Liverpool Mathematical Society (LivMS)



Membership of the Society is important to us, so please join if you can:

<http://www.livmathssoc.org.uk/cgi-bin/sews.py?Membership>

LivMS Popular Lecture

Wednesday 07 February 2024
17:00 to 18:00PM – online

Alicia Boole, the fourth dimension and the beginnings of the Liverpool Mathematical Society

Moira Chas, State University of New York at Stony Brook, USA

Suitable for Year 11 up and anyone interested in Mathematics

[Further details](#) and [Registration](#)

As a teenager, back in the 1870s, almost by chance, Alicia Boole learned basic ideas of geometry in four dimensions. From then on, she continued to think about these ideas, moved to Liverpool, married Liverpoolian Walter Stott and had two children. In 1899, the Liverpool Mathematical Society - the very one organizing this talk - was founded, with Walter as secretary. In parallel, to better understand four-dimensional objects Alicia built beautiful cardboard models. To her surprise, one day, in a mathematical magazine, she found a drawing that seemed to be copied from one of her models. She wrote to the author of that article, the mathematician Pieter Schoute, initiating a collaboration that would last until Pieter's death.

The three topics of this talk will be those in the title: **Alicia Boole**, the beginnings of the **Liverpool Mathematical Society** and some ideas about the **fourth dimension**.

Alicia Boole Stott has a [Wikipedia page](#)

MEM Challenge & Senior Challenge, LivMS Open Challenge

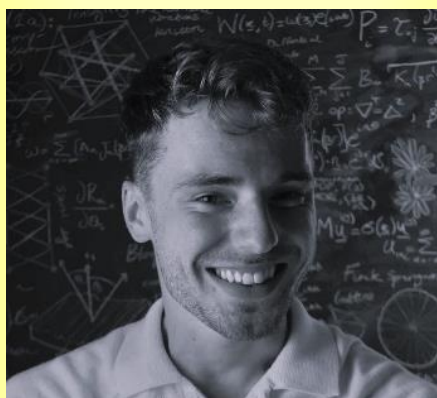
Copies of these **take-home competitions** for pupils in **Y7/8** (Challenge), **Y9/10** (Senior Challenge), and **Age 18 and under** (Open Challenge) will be mailed directly to Heads of Maths in all secondary schools by 31 January 2024, and can be **downloaded** from the websites below. They should be made available to pupils over **February half-term 2024**. Participation is **FREE**.

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

LivMS Popular Lecture

Wednesday 06 March 2024
17:00 to 18:00PM – venue TBA

Fantastical modes and how to find them **Finn Allison**, PhD student, Liverpool University



Suitable for Year 11 up and anyone interested in Mathematics

Further details and Registration [HERE](#)

We hunt a two-fanged finite shape-shifter, made from masses, point-like, and springs, linear.

At natural frequencies it's true nature is revealed - the modes fantastical otherwise concealed.

With a radial pulsing it lures its prey, and devours them whole so the legends say.

Its syncopated beats form a hypnotic dance, sending all who dare look into an endless trance.

A creature found lurking in the depths of caves, you say "hello" and to you back, it waves.



MEM Y8/9 Masterclasses

The 2023 Series was held face-to-face with 59 pupils attending at 5 venues on 5 Saturdays. Demand for places was very high and pupils who were unable to get a place were directed to the LivMS website:

[FunMaths Roadshow Home Activities](#)

LivMS Sixth Form Pop Maths Quiz

The 20th annual Pop Maths Quiz will take place both online and face to face at Liverpool John Moores University Student Life Building on

Saturday 02 March 2024

10:00AM to 2:00PM tbc.

Put the date in your diaries and keep an eye on the LivMS website for updates: [2024 Pop Maths Quiz](#)

LivMS Bursary Fund

Applications for bursaries made up to **29 February 2024** will be considered on a first-come first-served basis. We expect to award bursaries of between £50 and £300 (in exceptional circumstances, up to £500). For further details go to [LivMS Bursary Fund](#)

MEM and LivMS are pleased to acknowledge generous financial help received during the past 12 months from the Company of Actuaries Charitable Trust, P H Holt Foundation, Leverhulme Trust, Liverpool Hope University, Liverpool John Moores University, Mercer, University of Liverpool, University of Liverpool Maths School, and W.H.Smith Promotions Ltd.