

THE MATHEMAGORA 2021 ONLINE FESTIVAL OF MATHS

KING'S MATHS SCHOOL
IS HOSTING

A SERIES OF FREE
VIRTUAL TALKS

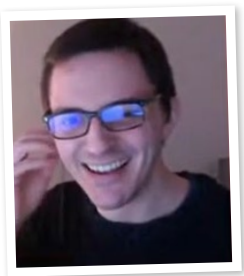
12-15 JULY 2021

THE MATHEMAGORA IS AN
ELECTRIFYING 'MARKET PLACE'
OF MATHEMATICAL AND
EDUCATIONAL IDEAS.

Talks marked with a blue dot
will be particularly relevant for
KS4 & KS5 students as well as
teachers and other adults. Talks
marked with a red dot are about
teaching and learning: perfect
for teacher CPD.

DON'T MISS THIS OPPORTUNITY TO HEAR FROM EIGHT
OUTSTANDING AND RENOWNED SPEAKERS.

A specialist state funded school for gifted
mathematicians aged 16-19 in the heart of London,
run in partnership with King's College London.



DR JAMES MUNRO

Admissions and Outreach Coordinator; Mathematical Institute, University of Oxford.

12TH JULY

16:30 - 17:30

PASCAL'S TRIANGLE ●

Investigations with addition: in Pascal's triangle, each entry is the sum of two from the row above. We'll explore the many patterns it contains.

Dr James Munro coordinates the admissions process for the undergraduate maths course at Oxford. He is responsible for ensuring that the Mathematics Admissions Test is set and marked.

Dr Munro is currently planning mathematics content for Oxford University's UNIQ summer school. Dr Munro runs a weekly maths livestream for people thinking of studying maths at university.



[Get your ticket for James Munro's talk.](#)



LUCY RYCROFT-SMITH

Framework developer and writer at Cambridge Mathematics.

12TH JULY

18:00 - 19:00

COFFEE+CAKE CAMBRIDGE MATHEMATICS ESPRESSOS ●

Since leaving the maths classroom to become a maths education researcher, writer and designer, Lucy has written, co-written or edited 37 Espresso: filtered maths education research summaries for teachers. Lucy has also conducted research into what makes a good research summary, and this has helped her refine the design and focus of Espresso. In her talk she will discuss what she has learnt and why it matters.

Lucy taught mathematics for over ten years. She is an award-winning mathematics resource designer and a freelance writer who writes and speaks on education and hosts the TES podcast Mathematips. She is the co-editor of Flip the System UK: A Teachers' Manifesto and writer of The Equal Classroom: Life-Changing Thinking About Gender.

Lucy is a researcher and writer on the Cambridge Mathematics Framework, with particular specialism in discrete mathematics and combinatorics and research communication to teachers. She is studying for her PhD in maths education at the University of Cambridge.

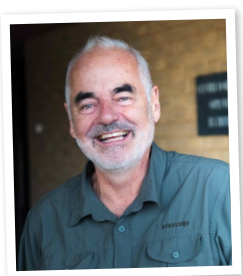


[Get your ticket for Lucy Rycroft's talk.](#)

FIND OUT MORE

kingsmathsschool.com/mathemagora-2021

**KING'S
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PROFESSOR SIR DAVID SPIEGELHALTER

Chair of the Winton Centre, University of Cambridge

13TH JULY

16:30 - 17:30



MATHEMATICAL CONCEPTS IN THE AGE OF COVID

The pandemic has focused attention on numerous mathematical ideas, from exponential growth to the probability that your Covid test is correct. Sir David will explain why these can be tricky to communicate.

Professor Sir David Spiegelhalter FRS OBE is Chair of the Winton Centre for Risk and Evidence Communication in the Centre for Mathematical Sciences at the University of Cambridge, which aims to improve the way that statistical evidence is used by health professionals, patients, lawyers and judges, media and policy-makers. His best-selling book, *The Art of Statistics*, was published in March 2019.



[Get your ticket for Professor Sir David Spiegelhalter's talk.](#)



DAVE HEWITT

Director of Mathematics PGCE, Loughborough University

13TH JULY

18:00 - 19:00



GRID ALGEBRA: AN INTUITIVE WAY TO APPROACH EARLY ALGEBRA

Algebra can be made more intuitive for learners. Dave will explore a piece of software and look at research evidence.

Dave Hewitt taught for 11 years before working for the University of Birmingham and now Loughborough University running mathematics initial teacher education courses and working with Masters and PhD students.

His research interests are centred around the notion of the economic use of time and effort in the teaching and learning of mathematics. He is currently the Leader of the Algebraic Thinking working group for the European Society for Research in Mathematics Education.



[Get your ticket for Dave Hewitt's talk.](#)

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**KING'S
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JOHN MASON

Author and maths
education expert

14TH JULY

16:30 - 17:30



SUMMING INFINITE GPs AS A STUDY OF SHIFTS OF ATTENTION

How 'reading' visual displays concerning the sum of infinite GPs illustrates how shifts of attention play out in teaching and learning.

Having spent 40 years at the Open University supporting teachers of Mathematics in all phases, and having been retired for 11 years, John continues to explore mathematical ideas arising from pedagogic situations. His interests are in mathematical problems solving, the use of mental imagery, the role of shifts of attention in teaching and learning, and accumulating useful pedagogical actions.



[Get your ticket for John Mason's talk.](#)



SOPHIE CARR

Founder of Bays
Consulting

14TH JULY

18:00 - 19:00



MAY THE (BAYESIAN) STATS BE WITH YOU.

Don't underestimate Bayesian statistics - when you think you've mastered it, you realise just how little you know.

Sophie grew up loving Lego, physics and aeroplanes. Whilst working as an aeronautical engineer, she became interested in information overload and learnt about Bayesian statistics which changed her career path. Sophie is still utterly fascinated by aeroplanes, but it turns out she loves data, numbers, maths and statistics even more. She's the founder of Bays Consulting and the World's Most Interesting Mathematician.



[Get your ticket for Sophie Carr's talk.](#)

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**KING'S
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DR MARTINE BARONS

Director of the Applied Statistics & Risk Unit, University of Warwick

15TH JULY

16:30 - 17:30



SAVING THE BEES WITH MATHS

We know that bees are important pollinators of our food. How do we know the best way to support them?

Martine switched to a career in mathematics from business and the third sector. As Director of the Applied Statistics & Risk Unit at the University of Warwick, she links cutting-edge mathematical research and the problems of society, business, government and industry. Martine is Vice President (Learned Society) of the Institute of Mathematics and its Applications, a member of the Newton Gateway to Mathematics Scientific Panel and the UK National Network representative for the European Service Network of Mathematics for Industry and Innovation.



[Get your ticket for Dr Martine Barons' talk.](#)



TOM FRANCOME

Senior Enterprise Fellow, Maths Education Centre, Loughborough University

15TH JULY

18:00 - 19:00



THEORY AND PRACTISING IN MATHEMATICS

Most teachers appreciate the value of practising but what do we know about effective practising in mathematics?

Tom became Senior Fellow in the Centre for Mathematical Cognition in Loughborough University's Mathematics Education Centre after several years teaching in schools, notably winning the TES Award for 'Maths Team of the Year 2015' and as a mathematics teacher educator.

Tom works to connect practitioners with research; integrating basic research, academic scholarship, and practical experience. Tom is currently researching the nature of practising in mathematics and co-author of Practising Mathematics: Developing the Mathematician as well as the Mathematics.



[Get your ticket for Tom Francome's talk.](#)

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