Talking Maths in Public Conference 2025

Lightning Talks Info Sheet

Talks marked with * will also have an associated stall or other information in the exhibition space you can visit. If you would like to contact any of the speakers, details are included below, or can be found on the delegate list.

Lightning Talks Session 1 (Thursday 28th, 12-1pm)

Name	Title	Talk description
Cath Moore*	Maths Week England (2 min talk)	Maths Week England 2025 takes place from the 15th to the 23rd November, with the aim of raising the profile of mathematics throughout England and making maths accessible and enjoyable for everyone. We'll give a quick overview of what we're planning, how you can get involved and how MWE can support your work. Find out more about Maths Week England at mathsweekengland.co.uk
Alison Eves*	Royal Institution Maths Masterclasses (2 min talk)	Hands on extra curricular maths workshops on any topic with children who are enthused about maths- what could be better? A chance to inspire students to see the breadth and beauty of our subject in a series of 2-2.5 hour sessions. You could become a Masterclass Speaker, or run your own series in your area. rigb.org/learning/ri-masterclasses or email masterclasses@ri.ac.uk
Katie Chicot* Max Hughes	MathsWorldUK: London's Calling	With a brand-new London centre and larger Leeds centre opening in the next two months, and a revolutionary "City of Maths" project on the horizon, it is an exciting year for MathsWorldUK! In this talk we will give an overview of what is coming up next for MathsWorld, and how you can get involved. More info: mathsworlduk.com
Barney Maunder-Taylor	Primary School Assemblies	I've noticed that not many maths communicators cater for Primary Schools (and even Nurseries!). If this is an age group you would like to explore, allow me to share some ideas to get you started, with a selection of maths tricks aimed at ages 4-11. More details and ideas at houseofmaths.co.uk
Ashleigh Ratcliffe*	Chalkdust / Pop math book club	Chalkdust is a magazine for the mathematically curious. You can read it online at chalkdustmagazine.com or get a physical copy out of your conference pack. Pop Math Book club is a virtual monthly book club for reading the pop math books we have building up on our shelves! Each month we will meet and discuss the book of the month (picked by attendees).
Christian Lawson-Perfect	Web-based interactive maths toys	Over the years I've made dozens of interactive toys to explore maths topics. I'll show some of them and talk briefly about how I make them, and what I think makes a good interactive.

Sophie Maclean	Solidarity and Unity (2 min talk)	Any job comes with its challenges and knotty topics. Maths communication is no different. But it is better for all of us if we are open about them and look out for each other. In these 2 minutes, I'm going to try and break some unhelpful taboos. And explicitly let everyone know that I have your back. Hopefully others will follow suit!
Daniel Ratliff*	The QED Network (2 min talk)	This quick vignette will introduce what the QED Network is (we're a network for queer mathematicians), what we do & have been doing (some cool'n' fun advocacy and visibility things) and how to get involved - by joining our mailing list, our Discord or just diving in at our events!... wait, I may have given the game away, but I promise the live showing will be especially fabulous! Website: sites.google.com/view/qednetwork/home
Ivo Siekmann (remote speaker)	Decolonisation - The secret weapon for conquering interesting mathematics	Decolonisation of mathematics is often met with raised eyebrows or even ridicule. Undiscouraged by this, a team of students and lecturers at Liverpool John Moores University (LJMU) set out to discover hidden mathematical gems in different cultures and find unsung heroes of mathematics in remote places. We have designed project-based group activities that will give students the opportunity to apply their mathematics skills to global challenges closely linked to colonial history - such as developing an approach for calculating their personal carbon footprints! I will show that decolonising the teaching of mathematics not only gives a fairer picture of the origins and the development of mathematical knowledge but also gives students a more realistic impression of how mathematics is applied to real-world problems. LJMU Curriculum Enhancement Internships - see under “Towards a decolonised mathematics curriculum for a globalised world” Twitter: @IvoSiekmann Bluesky: @ivosiekmann.bsky.social
Rachel Edwards	Warwick Institute of Engagement	Our host institution, University of Warwick, will share details about the work of their Institute of Engagement, and how it supports engagement activity across the university.
This session will be followed by the presentation of the 2025 MEGA Grant by Matt Parker, including a talk from the winner about their plans for the grant. For more information see tmip.uk/mega-grant.		

Lightning Talks Session 2 (Friday 29th, 9.15-10.30am)

Name	Title	Talk description
Xavier Morvan	Math Outreach on a Bicycle Tour	I will share how I carried math outreach materials on a 2.5-year bicycle trip, and used them to run playful math sessions in schools, homes, and communities across many countries.
Ilora	A young person communicating STEM creatively to other young people	I am a young person, and have run zine making workshops and made blender animations that I believe have helped to communicate STEM ideas more accessibly to other young people. I’d like to share my experiences.

David Martin	Engaging and reengaging the older adult in mathematics	Many revisit mathematics in retirement, not to progress in study and work, but with a desire to keep mentally active, as part of a lifelong enjoyment of learning, and to spend time with others. Using the u3a as an example, of which David is the National Subject Advisor, we'll look at some of the mathematical adventures older adults get up to and the opportunities that presents for us. david.martin@answers.me.uk u3a.org.uk/learning/subjects/maths-and-stats
Luke Corey	Oxford Mathematics Team Challenge	This March held the debut of a new student-run olympiad-esque competition for Year 12's, called the OMTC. The project was initially motivated by students from the US who wanted to replicate olympiad competitions there (BMT, SMT, HMMT), which is relatively alien to the competition space in the UK. Whilst I think olympiads have serious flaws for the purpose of outreach, I think there is a genuine merit to team competition events when done right - namely, the purposeful teaching of more advanced problem solving and logic. omtc.co.uk
Zahra Rezaei	Communicating Mathematics: Undergraduate Students as Ambassadors of Outreach	In this UG level module, I mentor undergraduate mathematics students to become confident communicators through two hands-on outreach experiences. As part of the "Communicating Maths" module, students design and deliver a structured mathematics lesson to college-level pupils and an interactive maths workshop for 8-year-olds from local primary schools. This dual approach allows them to adapt mathematical content and tone for different age groups, while building their own confidence and public engagement skills. The initiative also strengthens connections between our university and local schools, making maths more accessible and inspiring to a wider audience. Contact Zahra: szrl3@leicester.ac.uk
Madeleine Hall	Smith Institute's TakeAIM awards	When it comes to applied maths, it's a challenge to bridge the gap between cutting-edge research and real-world impact. So many brilliant students are solving problems that could transform industries, but they rarely get the chance to share their work beyond academic circles. Smith Institute's annual TakeAIM awards celebrates the work of early career mathematicians. It puts them centre-stage in a room full of industry experts and applied mathematicians, giving them a platform to share how their research could change the world. The goal of the competition, which takes place every March, is to highlight the crucial role that maths plays in delivering a brighter tomorrow. Are you a postgraduate student studying mathematics or data science at a UK or European university? Do you fancy putting your work on the map? Can you summarise your research in 250 words? That's all you need. Entries open in November. Learn more at www.smithinst.co.uk/takeaim
(Short break)		

Clare Rees-Zimmerman Chenying Liu	Maths Outreach at Oxford through Interdisciplinary Engineering	As engineers at the University of Oxford, we have participated in a range of exciting outreach projects that connect mathematics with fascinating aspects of engineering. These activities include: solving chemical calculations in 'Poison Puzzle'; the Chemistry Race, a unique competition format introduced from the Czech Republic; and exploring the relationship between geometry, origami, and advanced mathematical concepts. We are passionate about highlighting the interdisciplinary nature of mathematics and inspiring others to explore its potential beyond traditional boundaries.
Francesca Iezzi	The Edinburgh Maths Circles	Maths Circles, initiated in Cambridge by Vicky Neale and brought to Edinburgh by Zoe Wyatt in 2016, are free sessions for children aged 5 to 16 and their families. Participants are encouraged to think like mathematicians by engaging with fun, stimulating activities (primarily from NRICH), aided by university staff and students. In 2020, we adapted the format for online delivery. We now host six Maths Circles per year: three in-person at the university, each drawing about 250 participants, and three online. We also run bespoke Maths Circles in libraries and community centres. In 2022, we translated resources into Ukrainian to run events for Ukrainian families. To extend the initiative's reach, we conduct workshops for educators and lend resources to schools and communities upon request. This talk will explore our program, featuring feedback and tips for starting similar projects. Further info at maths.ed.ac.uk/outreach/for-families-and-students/maths-circles
Sam Hartburn*	Animation Generation Collaboration Presentation (2 min talk)	The TMiP Animation Generation Collaboration is a community project to create and publish 'process' videos of mathematical animations using a range of different techniques and processes. We've built up a fantastic collection of videos, and I'll use this talk to show some of the huge range of approaches that people have used. You can find links to all the videos at tmip.uk/animation.
Ben Cornish	Un-Natural Numbers: The Maths Chat Show (2 min talk)	@Un-NaturalNumbers: the YouTube chat show about maths. Each episode guests share their favourite facts about a single number. This is an open invite project.
Hope Duncan	Why I lie to my audience!	As a PhD student, I spend a lot of my time trying to communicate very niche concepts, and hearing lots of technical talks too! In academia (and outside it!), finding the balance between giving technical accuracy and being understandable and memorable can be difficult, and may even feel like you're lying to your audience. I'll talk about my own experiences with finding this balance, and challenge the audience to do the same. Website: hopeduncan.notion.site Bluesky: @hopeiona.bsky.social

Rachel Oughton	Young Minds, Big Maths	In Young Minds, Big Maths (YMBM) university mathematicians and early years practitioners (usually working with 3-4 year olds) meet together to talk about the maths that relates to the children's interests and ongoing activities. The aim is to equip the early years people to notice and explore more maths with their children. The project has been running since Sept 2022, and is research-based, but also focussed on providing high quality professional development for early years staff. Those taking part have told us it has increased their confidence and positivity around maths, and has led to a much broader coverage of maths in their settings. https://youngmindsbigmaths.co.uk/

Lightning Talks Session 3 (Friday 29th, 4-4.50pm)

Name	Title	Talk description
James Arthur	Big Theatre Festivals, Big Mathematics	I have recently been taking mathematics to Big theatre festivals and have realised interestingly that there's an audience there. It's not something that's used widely, but there's plenty of people looking for it. Let me explain some of the intricacies of what goes on.
Helena Verrill	Teaching a maths communication module	I'll discuss how this new third year maths module running at Warwick was set up, and describe the public engagement activities students got involved with.
Yudhi Bunjamin	Designing mathematics outreach workshops on mathematical thinking and virtues	Since 2018, a large team in the School of Mathematics and Statistics at UNSW Sydney have been working on designing several interactive mathematics outreach workshops for primary and secondary school students. These workshops are motivated by promoting mathematical thinking rather than by introducing a particular area or application of mathematics. The design of these workshops are focused on incorporating messaging on aspects of mathematical thinking that are important to developing the virtues that help make us live more fulfilling lives. The workshops have been presented in a wide variety of settings from school visits in regional parts of Australia to our school's annual Do The Maths event with around 250 students. This lightning talk will give an overview of the project at large.
Addie Baker	Behind the Research: Nerds with a Camera	Founded by Kat Phillips in 2022, Behind the Research is a public engagement initiative run by PhD students within the SAMBa CDT at the University of Bath in collaboration with the Department of Mathematical Sciences. The group's goal is to demystify the world of research and humanise the academics behind it, by bridging the gap between higher education and the public through online content creation. Behind the Research aims to provide PhD students at SAMBa with a digital toolkit that enables anyone to start sharing their work to the online world, diversifying the skillset of students and honing their communication skills. In the coming months, the group will welcome Addie Baker to the team, a prospective PhD student with fresh ideas and buckets of enthusiasm for maths communication; so join us as we reflect on our journey so far, and lay out our plan for the future as we go 'Behind the Research!'

Sam Hansen	Mathematics Communication Lesson Notes	I want to share the lesson notes I have created for the series of 4 mathematical communications sessions that I teach and have posted for free use by others.
Katherine Holmes	Applying Improv to Maths-Comm Training	During my PhD, I joined forces with experienced Sci-Comm trainer Justine Jones to provide training for several cohorts of undergraduate mathematicians. Each year, the 10-week program began with three weeks of beginner's improv drama, which bolstered the students' confidence and public speaking capabilities. In this talk, I will discuss how we incorporated improv into the program, share the challenges we faced, and reflect on the effectiveness of this approach that we may build upon to support mathematicians and communicators at any level. katherineholmespublic.wordpress.com
Jason Amoo-Gottfried	Maths by Colour: Building Communities of Mathematical Practice Through Playful Colour-Based Learning	What if sophisticated arithmetic could be made accessible through colours? MathsByColour transforms abstract mathematical ideas into visual, playful experiences that spark curiosity. By representing numbers through colour patterns, children naturally discover relationships and develop intuitive understanding. Beyond individual learning, this creates opportunities for communities of practice where educators, parents, and learners collaborate around mathematical thinking. Through implementations in the UK and Ghana, I've seen how this visual language breaks down barriers and builds confidence. In this lightning talk, I'll share key insights from these cross-cultural experiences and outline hopes for scaling this approach to support more communities in making mathematics accessible and enjoyable.
Shanti Pise	Meaningful mathematics with movement	Step into the lively world of Year 4 classrooms in Hertfordshire, where mathematics comes alive through movement, stories, and hands-on exploration! In this talk, I'll share a range of playful and imaginative activities I use to spark curiosity and deepen understanding like using our bodies to model graphs, folding and cutting paper to uncover geometric truths, and turning mathematical concepts into stories we act out together. Join me to explore how we can make abstract maths tangible, memorable, and above all exciting, fun developing mathematical interest through engagement!