## Lightning Talks Info Sheet



Contact details for speakers may be found on the delegate list or below.

## Lightning Talks Session 1 (Thursday 31st, 10.30-11.30)

Name	Title	Talk description
Philipp Legner	The Sound of Mathematics	What do polygons sound like? What rhythms do different fractions make? How can you compose songs using logic gates? How do you play an equation? Music can be a great way to get a wider audience excited about mathematics – but also to make graphical representations of mathematical concepts much more tangible to students with visual impairments. I will share some interactive demos, research and examples of how we've converted mathematical diagrams into music.
Sam Hartburn	Do you wanna be in a band with me?	I like writing songs about maths. I'd like to work with other people to make something better than I can do with just me and my keyboard. Maybe you write songs, play an instrument, sing, know how to mix audio, or something else musical. If you're interested in making mathematical music with me, I want to hear from you! Contact details on <u>samhartburn.co.uk</u> . See one of my songs here: <u>youtu.be/LXZIQ51W3Ns</u>
Rita Ball	Wellbeing Maths for people living with a Dementia Diagnosis	In 2018 we hosted a 6 week pilot at our local Alzheimer's Society Dementia Hub. It was to trial the impact of our recreational & Wellbeing Maths programme for people living with a dementia diagnosis. The project involved multiple partners, including Alzheimer's Society, Merton Dementia Hub, our local housing association, council & a local charity. All partners were taken aback with the positive impact of the unusual project, and it went on to be commissioned for the years since. I'd like to share something with you about the project, the joy it's bringing to participants and my delight in being able to share maths puzzles with people who ordinarily do not participate in anything too mathsy, including local public health professionals at our Dementia Action Alliance AGM. If you might like to run such a group in your community, I would love to share my experience & tips too. Come chat to me afterwards, or contact me on <u>rita@roots2grow.org</u> or Twitter <u>@MathsExplorers</u> / <u>@WellbeingMaths</u> , and you'll find more information on our website at <u>roots2grow.org/wellbeingmaths.html</u>
Thomas Vogt	Humour and math – a contradiction? The Math Cartoon Prize of the German Mathematical Society	The Math Cartoon Prize has proven to be one of the most original and successful activities of the German Mathematical Society as it has received a lot of positive feedback over the years. We invite cartoonists and other artists worldwide to submit up to three cartoons related to mathematics. The three "best cartoonists" are awarded a prize, and there are also several honorable mentions, along with a public exhibition on-site and online. We collaborate with toonpool.com, one of the largest non-profit websites for cartoons in Europe. The website supports our call for submissions, the application process and the selection of the winners. The response from the community is tremendous. The number of entries rose from 240 in the first year (2008) to 574 in 2022, with 174 artists from 42 countries taking part. The media reception has also been very positive. You can see some examples in a video, which will be shown in the talk: https://youtu.be/DL7yemiUJWO

Matthew Scroggs	Chalkdust	Chalkdust is a magazine for the mathematically curious. I would like to encourage TMiP attendees to write articles for it! Read online at <u>chalkdustmagazine.com</u>
Francesca Iezzi	Geometry, Art and Mind	Coming up in Edinburgh in November 2023, the exhibit "Geometry, Art and Mind" will bring the rigor and beauty of Geometry to the public, through the use of computer-aided design, 3D-printed models, projections and bright lights, the exhibit explores concepts such as tiling, different planar geometries, and also the 4th dimension. The highlight of the exhibit is a zoetrope showing the rotating 3-dimensional projection of a 4D hypercube. A first edition of this exhibit ran in 2017 with extremely positive feedback from visitors. Further info at: <u>https://bit.ly/brilliant-geometry</u> In preparation for the rerun, we are currently in the process of implementing two new sections, one about optical illusions and one about maps and projections of the globe. In the talk I will show some photos and some of the material, and hopefully entice people to visit the exhibit or run similar projects.
Kevin Bowman	Broadway Style Maths	Ways to capture the public's imagination and deliver sellout shows about mathematics. For more information, contact <u>alstanzo.kevin@gmail.com</u>
Dr Kevin Olding	Mathsaurus	Whilst working as a teacher I started the Mathsaurus YouTube channel (28k subscribers at <u>youtube.com/mathsaurus</u> ) and associated website <u>www.mathsaurus.com</u> . During the pandemic, alongside working on a PhD, I started making online courses at <u>https://courses.mathsaurus.com</u> , including substantial free courses covering most of the UKMT maths challenges, including the Kangaroo and Olympiad follow-on rounds. These have been taken by more than 17,000 students aged 9-18 and I am now working full time on expanding these, keeping a particular focus on enrichment and challenge style maths for high achieving students.
Ben Sparks/ TMiP team	A Tribute to Vicky Neale	This year we lost mathematics outreach giant Vicky Neale to cancer. We will show a tribute video made using contributions from TMiP members and attendees, and take a moment to reflect on Vicky's legacy.

## Lightning Talks Session 2 (Friday 1st, 9.15-10.25)

Name	Title	Talk description
Kat Phillips	How I learned to stop worrying and love the Comm	In this talk I will walk you through my introduction to the world of maths Communication, focusing on how I went from a maths PhD student teaching online during covid, to a successful Twitch Communicator (who's still doing the whole PhD thing too!). Rather than coming from a public speaking background, I jumped straight to online content creation. I'm now working my way back to the realm of traditional outreach, and hope that sharing my experience can encourage more people in the realm of livestreaming.
Cindy Lawrence	MOST Program	MoMath is delighted to discuss the pilot program for MOST, the Mathematics Outreach Seminar and Training program. This three-day seminar brought together a cohort of early career mathematicians who identify as female to work with Museum staff, seasoned mathematicians, and performing artists from the National Peoples Improv Theater (The PIT), in an effort to develop the outreach communication skills of the young women. Participants have committed to deliver a number of general audience talks in their home communities by the end of 2024.

Rachel Beddoes	Why Maths!	Why Maths! is a set of short videos, all under four minutes, featuring over 30 talented young people, from very different backgrounds, discussing their varied experiences of maths. The videos are specifically designed to showcase the relevance and practical applications of maths, answering questions from "When will I ever need this?" to "Where can maths take you?" In the talk we will focus on the video aimed at those individuals who think "I can't do it!". You can see the whole collection of videos at <u>bit.ly/why-maths-videos</u>
Susan Bugby	Maths On Toast	What does maths look like? Fun! Hands-on! Creative! and Enjoyable! At Maths on Toast we show everyone how to 'play' with maths. We provide families and communities with positive experiences of maths that relate to everyday life and the world around us. We take away barriers and encourage families to explore, learn and most importantly enjoy maths together. Let us tell you more about our Maths on Toast approach. <u>mathsontoast.org.uk</u>
Sarah Denison	Developing Diversity in Maths	I will share some of the resources created as part of my EDI work for the AMSP and the reasons behind their creation. I will also ask for help in developing a diverse database of maths speakers and workshop leaders.
Katie Chicot	Hands-on Maths of Planet Earth	MathsWorldUK are developing the contents of the future maths discovery centre and are currently working on Maths of Planet Earth. In this talk I'll give an overview of our ideas so far and ask for further suggestions. For more info about MathsWorldUK visit <u>MathsWorldUK.com</u> .
Charlotte Zwetsloot	Math Trail Leiden	As part of my master specialisation in Science Communication and Society, I developed a Math trail through Leiden, together with Francien Bossema (also present at TMIP) and professor Ionica Smeets. The <u>Math Trail Leiden</u> was developed for high school students and their teachers, but has also been very popular among math aficionados in general. For the trail, students walk around the city. They visit historical highlights and solve mathematical puzzles that are related to the concepts they learn in school, but applied to the world around them. The design of the trail was based on audience research – surveys with students and focus groups with teachers. A book chapter about this research and the trail design was published this year in the <u>Handbook of Mathematical Science Communication</u> (editors Anna Maria Hartkopf and Erin Henning).
Francien Bossema	PhD research in the Rijksmuseum	I'm currently doing a PhD at the Center for Mathematics and Computer Science, I investigate art objects from the Rijksmuseum Amsterdam using X-ray CT. During my project I've incorporated science communication by writing blogs, making a project video and giving lightning talks for laymen at the 'Friends' night' at the museum. I was also in a Dutch TV series called 'Historical Evidence'. In my lightning talk, I will show some examples of the science communication initiatives I did during my PhD and share ideas for future outreach within the museum context. For more information, please visit my website: <u>https://fgbossema.github.io/</u> , and follow me on Twitter <u>@FrancienBossema</u> and LinkedIn: <u>https://www.linkedin.com/in/francien-bossema-a587b012a/</u>
Matt Parker	Presentation of the 2023 MEGA Grant	The MEGA Grant is a bursary scheme for mathematical public engagement activities, with funding organised by Stand-up Mathematician Matt Parker and coordinated by TMiP. The grant is awarded roughly every two years to a mathematician or maths communicator, to fund a maths activity taking place in the UK. The winner of the 2023 grant will describe their plans for a maths engagement activity. More details at <u>talkingmathsinpublic.uk/mega-grant</u> .