

Time	Event	Room/s			
09:00 – 09:25	Welcome and introduction	Room A <p style="text-align: center;">Stephen Broderick – QAMT President</p>			
		Room A	Room B	Room C	Room D
09:30 – 10:15	Session 1 Workshops	Tierney Kennedy Kennedy Press <i>Why kids don't get division and how to fix it.</i> Division is more than simply the inverse of multiplication. It connects fractions, decimals, percentage and measurement and forms a key element for connecting number laws with algebraic reasoning. Developing the structural thinking underpinning division can be a turning point for many kids in truly understanding maths. This workshop will provide a developmental sequence of stages for division as well as providing practical teaching ideas to address gaps at each stage. QAMT moderator: Leah O'Neill	David Ilesley <i>This is an introduction to M1 Maths (m1maths.com), a free website containing the resources necessary to learn Years 7-10 Maths and Years 11-12 Maths Methods</i> This workshop will showcase this free website that has 120 knowledge modules at 6 levels. Each module covers one topic and contains explanations, practice exercises (with answers) and revision sets. There are also Skills modules for developing mental arithmetic, problem solving and investigation and communication skills. The modules can be used by students for independent learning or to go over subject matter that they missed or wish to review. They could be used by schools as a supplement or substitute for a textbook and/or as the bases of a school program. Model assessment materials are included. Free support is offered for any school thinking of using or trialling the materials with their students. QAMT moderator; Jim Lowe	Alastair Lupton Le Fevre High school South Australia <i>Approaches to technology-active assessment in Mathematical Methods</i> With the first group of Year 12 students currently studying Mathematics Methods, high stakes assessment and the way(s) to approach it are a hot topic. In particular, what does it mean to have a technology-active examination, how should students approach such a thing and how can teachers prepare them? This workshop will focus on the Sample Assessment Paper 2, from the point of view of the best way(s) to tackle this material and how active is/should technology be? Demonstration technology is the Casio CG50 AU graphics calculators. A set of freely available videos presenting the solutions to the Sample Assessment Paper 2 with discerning and efficient use of this technology will be shared. QAMT moderator: Paulina Sliedrecht	Evan Shellshear Biarri Optimisation <i>How the business of mathematics has changed.</i> Biarri Optimisation has offices in Colorado, Melbourne, around the UK and here in Brisbane. Biarri Optimisation was founded to revolutionise how businesses can utilise mathematics across their businesses. This commercial application of mathematics supports better business decisions in supply chains, workforce planning, energy and mining, healthcare, telecommunications and predictive analytics – big data and mathematical modelling for decision making tools. Evan will take you on a journey of the business of mathematics, with information to bring the real world of mathematics to you as educating our future users of mathematics. QAMT moderator: Monique Russell
10:20 – 10:35	BREAK –	Room A <p style="text-align: center;">Texas Instruments - Annual and Major sponsor</p> Texas Instruments education support includes graphics calculators, scientific calculators, financial calculators, and basic and elementary calculators along with data collection solutions and TI-Nspire Technology to deepen students' understanding of maths, science and STEM. Texas Instruments provide student software and teacher software to help demonstrate and lead classroom exploration of maths concepts. Texas Instruments products engage students in coding, engineering and STEM projects and include real-time assessment, share files and monitoring tools. https://education.ti.com/			

<p>10:40 – 11:25</p>	<p>Session 2 Workshops</p>	<p>RECORDED SESSION Dr Judy Hartnett Learning Through Doing</p> <p><i>Structured Hands on Activities = Engagement + Understanding</i></p> <p>This session will demonstrate a 3-part lesson structure (whole class, hands-on, independent) that builds understanding using inquiry style questioning and hands-on resources to develop deep understand of the big ideas of Maths. Participants will be shown through all three parts of at least one lesson to experience using the resources and inform discussion about the learning potential.</p> <p>QAMT moderator: Monique Russell</p>	<p>Linda Carroll and Paulina Sliedrecht STEM team DoE Qld</p> <p><i>M in STEM - Transforming secondary mathematics in Queensland state schools</i></p> <p>The M in STEM initiative aims to strengthen effective pedagogical practices in secondary mathematics and the connections and continuities across Years 7-12. This session will present an outline of the initiative, its approach to building teacher capability and a selection of resources to promote effective practice in secondary mathematics classrooms. The session will include a hands-on activity for teachers of secondary mathematics to reflect on their practice and plan next steps in their professional learning.</p> <p>QAMT moderator: Rodney Anderson</p>	<p>RECORDED SESSION Dr Michael Bates and Theo Clarke QCAA</p> <p><i>Mathematical modelling, What? Why? And How?</i></p> <p>This workshop will focus on why mathematical modelling is important, what mathematical modelling is, with examples of descriptive, process, inductive, deductive, deterministic and stochastic models and how to develop mathematical modelling problems. Participants have the opportunity to further develop their understanding of mathematical models in the context of high school mathematics and to consider how to apply their learning to prepare students to solve mathematical modelling problems.</p> <p>QAMT moderator: Stephen Broderick</p>	<p>Darius Samojlowicz and Dr Lewes Peddell Southern Cross University and MANSW</p> <p><i>Teacher of mathematics identify framework MANSW joint project with SCU</i></p> <p>The Mathematics Association of New South Wales (MANSW) and Southern Cross University are conducting a joint 3-year research project investigating factors impacting the development of teacher-of-mathematics identity and retention in regional , rural and remote areas of NSW. This study sits within the context of shortages of qualified mathematics teachers and how the challenges of this situation may be addressed. This presentation will share what we're learning through the initial phase of implementing a Teacher of Mathematics Identify Framework within a community of practice model in selected rural and remote areas of NSW.</p> <p>QAMT moderator: Greg Bland</p>
<p>11:30 – 11:45</p>	<p>BREAK – SPONSOR</p>	<p>Room A</p> <p style="text-align: center;">Mathspace – Silver sponsor Nicola Wall</p> <p><i>With the new ATAR system, how much stress will students experience in the lead up to this year's high stakes external exams?</i></p> <p>Join us as we look at how unobtrusive low-stakes continuous assessment can be used throughout the formative years. We'll give you a quick sneak peek into our new adaptive diagnostic check-ins with growth reporting. QAMT attendees will be amongst the first teachers to see this nationwide. www.mathspace.co/au</p>			
<p>11:50 – 12:40</p>	<p>KEYNOTE</p>	<p>Room B</p> <p style="text-align: center;">Robert Kaplinsky – Why We Should Reconsider Using Worksheets (And What We Should Be Doing Instead)</p> <p>Robert Kaplinsky has been an educator since 2003 as a classroom teacher, teacher specialist for Downey Unified School District, instructor for the University of California, Los Angeles (UCLA), and presenter at conferences around the world. He co-founded the website Open Middle, has been</p>			

		<p>published in Edutopia and Education Week, is the author of Open Middle Math: Problems That Unlock Student Thinking, and created the #ObserveMe movement. He is also the founder and president of Grassroots Workshops.</p> <p>QAMT moderator: Greg Bland</p>			
12:45 – 13:00	BREAK – Silver sponsor	<p>Room A</p> <p style="text-align: center;">Matific – Silver sponsor Gerard Tuffield</p> <p>Matific is a primary maths learning platform designed to engage students through gamification. Matific’s activities focus on conceptual understanding and critical thinking through a guided self-discovery process. Matific provides a supportive learning environment that encourages students to tackle challenging problems and become active participants in their own learning. Developed by mathematics professors and curriculum experts, Matific has been academically proven to help improve test results on average by 34%. This session will provide a quick introduction to Matific to enable participants to decide if they wish to explore the resource further. A competition will be conducted in conjunction with this session with one lucky delegate winning a class subscription to Matific for 2021!</p> <p>www.matific.com</p>			
13:05 – 13:50	Session 3 – Workshops	<p>Leah O’Neill Kennedy Press</p> <p><i>Interleaved maths practice in the early years</i></p> <p>Interleaving for young students: revision and practice assists students to retain and recall mathematical concepts and strategies. This presentation will explore interleaved maths practice and how it can be adapted to suit early years setting.</p> <p>QAMT moderator: Monique Russell</p>	<p>Rob Proffitt-White Beckenhan Te Kuro Puroto NZ</p> <p><i>Disposition, the fourth proficiency</i></p> <p>Reconnecting students of all ages to value and engage with mathematics can be a daily battle for many teachers. In this workshop some of the activities that teachers have reported as having the biggest impact in re-energising students and bringing the general capabilities to life for all ages will be showcased.</p> <p>QAMT moderator: Stephen Broderick</p>	<p>Peter Fox</p> <p><i>Back to the Future</i></p> <p>2020 is the year that no one saw coming, not even the likes of Zemeckis (BTTF) visited this unparalleled time. Queensland students and teachers focussed on their new courses and external examinations, 18 million hectares of Australia’s east coast turned to ash and a 14 micron pathogen dramatically changed the world. As educators we become frustrated if students don’t learn from our lessons, so what have we learned and what changes will we implement based on the experiences that 2020 has delivered? In this session we will take a positive look at some of the mathematics covered in the media and the tools and environments that teachers have used to deliver content.</p> <p>QAMT moderator: Paulina Sliedrecht</p>	<p>Anthony Harradine Prince Alfred College</p> <p><i>Mathematical methods, Those exams ...</i></p> <p>This workshop will look at writing some exam style questions for Mathematical Methods. They could be utilised for use with students when preparing for the up-coming examinations. The examples provided can be modified and provide some guidance for your own context. The workshop can also answer any questions about technology use with exam questions you may have.</p> <p>QAMT moderator: Greg Bland</p>
13:55 – 14:10	BREAK –	<p>Room A</p> <p style="text-align: center;">Open discussion – catchup with your colleagues over a cup of tea QAMT moderator: Paulina Sliedrecht</p>			

<p>14:15 – 15:00</p>	<p>Session 4 - Workshops</p>	<p>Rex Boggs</p> <p><i>My all-time favourite middle-school maths resources and activities</i></p> <p>The middle-school classroom is unique. It is vital that in these years both deep understanding and a love of mathematics is facilitated. In this workshop practical resources and activities that are perfect for the middle-school classroom will be shared and showcased.</p> <p>QAMT moderator: Jim Lowe.</p>	<p>Rodney Anderson</p> <p>Moreton Bay College</p> <p><i>Your Ticket to Success – favourite activities to introduce and reinforce mathematical concepts.</i></p> <p>In this workshop tried and tested activities will be shown that can be utilised to both introduce and reinforce mathematical concepts in the junior secondary classroom. The Junior secondary context is one where deep connections are required in the transition between the primary school and upcoming senior school is vital. These activities are engaging and demonstrate effective pedagogical practices.</p> <p>QAMT moderator: Paulina Sliedrecht</p>	<p>Mark Hansen</p> <p>Deputy Principal Sandy Strait SS</p> <p><i>Exploration: the key to successful student disposition and achievement</i></p> <p>The Australian Curriculum (ACARA: Mathematics) states that “mathematical exploration” is essential to the expansion of ideas when working with the content and proficiency strands. As mathematical exploration is a focus of this virtual conference, this presentation will showcase digital and physical tools and activities that engage and improve student learning at Sandy Strait State School and beyond. It will also give some tips for whole school improvement in disposition and achievement in mathematics.</p> <p>QAMT moderator: Abigail Twyman</p>	<p>QAMT executive</p> <p><i>All about the QAMT problem solving competitions – 5/6 - 12</i></p> <p>Come along to see how you can host and / or involve your students in collaborative, challenging and fun problem solving competitions from year 5 through to year 12. The QAMT competitions offer strong QAMT executive support in running and organising.</p> <p>QAMT moderator: Monique Russell</p>
<p>15:05 – 15:15</p>	<p>Closing and thanks Competition winners</p>	<p>Room A</p> <p style="text-align: center;">Stephen Broderick, Paulina Sliedrecht QAMT executive</p> <p>Presenter gifts proudly provided by Geek Boutique</p>			