

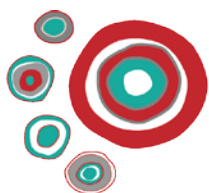
15th International Congress on Mathematical Education

7-14 July 2024 • ICC Sydney, Australia

Come and be counted

Sunday 7 July 2024

Time	Session	Room
0900 - 2000	Registration	Registration Desk
0900 - 1600	Early Careers Research Program Day <i>For more information on the ECR Program please visit the Congress website. www.icme15.org/icme-15-scientific-program/early-career-research-program/</i> <i>*This ECRP is available to delegates that have registered and paid to attend the ECRP.</i>	University of Technology Sydney (UTS)
1800 - 2000	Welcome Reception	The Gallery



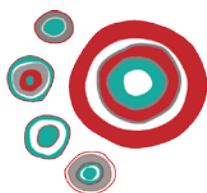
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Monday 8 July 2024

Time	Session	Room
0900 - 1100	Welcome to Country & Opening Ceremony	Darling Harbour Theatre
1100 - 1130	Morning Tea	The Gallery
1130 - 1230	Invited Lectures	
	Algebraic Thinking: Research and Curricular Perspectives	C4.6
	Are learning analytics and AI compatible with classroom research? Transcending the methodology wars	C4.11
	Building Community Around Mathematics Storytelling	C4.9
	Co-constructing First Nations perspectives and Knowledges for STEM	C3.5
	Developing equity in mathematics education by recognising and building on the strengths and resources of diverse communities	Cockle Bay Room 1
	Disruptive Imaginaries of Transnational Mathematics Education: Centering People and the Planet	C4.3
	Erna Yackel: The trajectory, influence, and legacy of her work	Parkside 2
	How can you expand your research within and beyond mathematics education?	C4.5
	Is research in Teacher Training addressing mathematical educational problems in vulnerable populations?	C3.2
	Making mathematical thinking visible in primary classrooms: Moving beyond tasks, talk, and turn-taking	C4.4
	Meaningful, relevant and inclusive mathematics education	C4.1
	Out of school knowledge of modes of quantification and implications for school learning	C2.6
	Phases and strategies on mathematical problem posing. Interrelations with inquiry and mathematical modeling in teacher training didactical experiences	C2.3
	REFLEXIVE DISCUSSIONS ON DEMOCRACY IN THE MATH CLASSROOM	C4.10
Rethinking the disconnect between school mathematics and university mathematics.	C3.4	

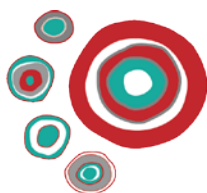


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1130 - 1230	Students' use of "mental" and "unconventional" brackets across educational levels: An oddity or a reliable option?	C2.2
	Successes and Challenges of Improving Mathematics Instruction by Using Five Practices for Orchestrating Productive Mathematics Discussions	Cockle Bay Room 2
	Thinking about how and why: Embedding First Nations perspectives into mathematics teaching	C4.7
	Un-settling conversations on mathematics education: Enacting equity as process	C3.6
	What connections should elementary mathematics establish? Perspective on link elementary mathematics and advanced mathematics	C4.8
	Workshops	
	Computer Science Unplugged! -- Computational Thinking in Your Classroom.	E3.3
	Designing a Teacher-Friendly, Student-Centered Introduction to Data Science and Statistics.	C3.1
	Easy steps to the modeling and animation of mathematical concepts in Excel.	C2.1
	Exploring the development of teacher noticing in student mathematical thinking supported by Smart Pen System: a case study in a Chinese primary school.	E3.1
	Hungry Birds – Adventures with the Hyperbolic Paraboloid.	E3.4
	Jumping Kangaroos and the Glass Ball investigations.	C4.2
	Lifting Maths out of the Textbook.	C2.4
Making sense of fraction division using story problems, visual models, and paper strips.	E3.2	
1230 - 1400	Lunch	The Gallery
1400 - 1530	Topic Study Group - Strand A	
	TSG 1.1: Teaching and learning of number and arithmetic	C4.9
	TSG 1.3: Teaching and learning of algebra at secondary and tertiary levels	C4.3
	TSG 1.5: Teaching and learning of measurement	C2.2

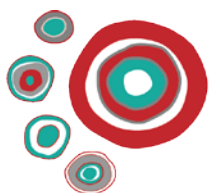


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1400 - 1530	TSG 1.7: Teaching and learning of statistics	C4.8
	TSG 1.9: Teaching and learning of computational thinking	C4.6
	TSG 2.1: Mathematics education for students with special learning needs	C4.7
	TSG 2.2: Research on mathematical promise and giftedness	C2.4
	TSG 2.4: Culture, language and ethnicity in mathematics education	Cockle Bay Room 2
	TSG 3.11: Task design and analysis	C2.3
	TSG 3.14: Research and development in assessment in mathematics education	C4.1
	TSG 3.16: Mathematics and interdisciplinary education/STEM education	Parkside 2
	TSG 3.17: E-teaching and learning/blended teaching and learning	C2.1
	TSG 3.2: Mathematics education at tertiary level	C4.5
	TSG 3.3: Problem posing and solving in mathematics education	C3.3
	TSG 3.5: Visualization and embodiment in mathematics education	C3.2
	TSG 3.7: The role and the use of technology in the teaching and learning of mathematics at primary and lower secondary levels	C4.11
	TSG 3.8: The role and the use of technology in the teaching and learning of mathematics at upper secondary and tertiary level	C4.10
	TSG 4.1: Preservice mathematics teacher education for the early childhood/primary level	C4.4
	TSG 4.4: In-service mathematics teacher education and mathematics teacher professional development for secondary level	Cockle Bay Room 1
	TSG 4.5: Knowledge in/for teaching mathematics at primary level	C3.4
	TSG 5.1: Students' identity, motivation and attitudes towards mathematics and its study	C3.6
	TSG 5.10: Methods and methodologies in mathematics education research	C4.2
	TSG 5.11: International cooperation in mathematics education	C2.5



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1400 - 1530	TSG 5.2: Mathematical literacy	C2.6
	TSG 5.3: Cognition, learning sciences, and neurosciences in mathematics education	C3.1
	TSG 5.4: The role of the history of mathematics in mathematics education	C3.5
	TSG 5.8: Philosophy of mathematics and mathematics education	E3.1
1530 - 1600	Afternoon Tea	The Gallery
1600 - 1730	Topic Study Group - Strand B	
	TSG 1.10: Teaching and learning of discrete mathematics	E3.1
	TSG 1.2: Teaching and learning of early algebra	C4.10
	TSG 1.4: Teaching and learning of geometry	C3.5
	TSG 1.6: Teaching and learning of probability	C4.7
	TSG 1.8: Teaching and learning of calculus	C3.6
	TSG 2.3: Mathematics and creativity; mathematical competitions; mathematical challenge	C4.9
	TSG 2.5: Ethnomathematics and First Nations/Indigenous people's mathematics and mathematics education	C3.4
	TSG 2.6: Mathematics education in under-resourced contexts	C2.5
	TSG 3.1: Mathematics education at early childhood and primary level	Parkside 2
	TSG 3.10: Research on mathematics classroom practice at secondary level	C4.1
	TSG 3.12: Research and development on textbooks and resources for learning and teaching mathematics	C3.2
	TSG 3.13: Language and communication in the mathematics classroom	C3.3
	TSG 3.15: Research and development in testing (national and international) in mathematics education	C2.6
	TSG 3.18: Data science teaching and learning	C4.4

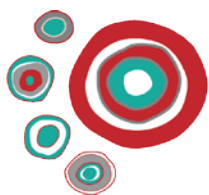


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1600 - 1730	TSG 3.4: Mathematical applications and modelling in mathematics education	Cockle Bay Room 1
	TSG 3.6: Reasoning, argumentation and proof in mathematics education	C4.5
	TSG 3.9: Research on mathematics classroom practice at primary level	C2.3
	TSG 4.2: Preservice mathematics teacher education for the secondary level	C4.11
	TSG 4.3: In-service mathematics teacher education and mathematics teacher professional development for primary level	C4.3
	TSG 4.6: Knowledge in/for teaching mathematics at secondary level	C2.4
	TSG 4.7: Affect, beliefs, and identity of mathematics teachers	C4.8
	TSG 4.8: Knowledge and practice of mathematics teacher educators	C4.6
	TSG 5.12: Popularization of mathematics	C2.2
	TSG 5.5: Social and political dimensions of mathematics education	Cockle Bay Room 2
	TSG 5.6: Research and development on mathematics curriculum	C4.2
	TSG 5.7: Mathematics education in and for work; lifelong mathematics education including adult education	C3.1
	TSG 5.9: Theories in mathematics education	C2.1



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Tuesday 9 July 2024

Time	Session	Room
0900 - 1000	Plenary Lecture - Rina Zazkis	
	Plenary Lecture - Rina Zazkis	Darling Harbour Theatre
1000 - 1100	Awardee Lectures	
	Castelnuevo Lecture	Darling Harbour Theatre
	Klein Lecture	Pyrmont Theatre
	Freudenthal Lecture	Parkside 2
1100 - 1130	Morning Tea	The Gallery
1130 - 1300	Plenary Panel	
	Plenary Panel: What counts as evidence in mathematics education?	Darling Harbour Theatre
1300 - 1430	Lunch	The Gallery
1430 - 1600	National Presentations	
	Australia, National Presentation	Pyrmont Theatre
	Survey Reports	
	ICME-15 Survey Report: Mathematics education and Indigenous perspectives	Parkside 2
	ICMI Affiliate Sessions	
	CIEAEM - International Commission for the Study and Improvement of Mathematics Teaching	C4.5
	EMF - French speaking Mathematics space	C4.8
IACME - Inter-American Committee on Mathematics Education	C4.1	

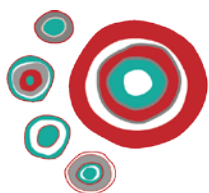


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1430 - 1600	IOWME - International Organisation of Women and Mathematics Education	Cockle Bay Room 1
	MCG - International Group for Mathematical Creativity and Giftedness	Cockle Bay Room 2
	PME - International Group for the Psychology of Mathematics Education	C4.4
	Workshops	
	A Framework for Describing and Assessing Quantitative Reasoning (QR).	C2.6
	Building Advanced Perspectives of Teacher Candidates' Mathematical Knowledge for Teaching.	C2.1
	Connecting Sign Language and Mathematics through problem-solving.	C4.3
	Designing ethical data science instructional tasks for pre-service teacher education.	C2.4
	Designing peer instructions voting to teach threshold concepts in statistical disciplines and beyond.	C3.5
	Designing professional development activities to support pedagogical content knowledge.	C4.11
	Developing a School-Wide Model for Ambitious Mathematics Teaching through a Researcher-Practitioner Partnership.	C3.1
	Enhancing Pedagogy: A Deep Dive into Evaluating the Effectiveness of 360° Video through the Application of the Quality Teaching Model.	C2.2
	Experiencing a digitally instantiated curriculum for supporting teaching mathematics through problem-solving in elementary grades.	C3.2
	Exploring Computer Science with LYNX to Learn Geometry and Logo Programming Code.	C2.5
	From Burnt Out to Stand Out - Building on how the New South Wales Department of Education is tackling the supply of happy, confident and competent Mathematics Teachers.	C4.2
	Geometric Origami from Pacific Shore to Shore: Paper Folding that Counts!	E3.3
	Learn maths taking photos & take photos learning maths.	E3.4
	Math trails coming home to Australia: Mobile learning outdoors with MathCityMap.	C4.9
	Moving in Mathematics.	E3.1
	Practical strategies and approaches for integrating news from contemporary mathematics into ordinary high school curricula	C3.6

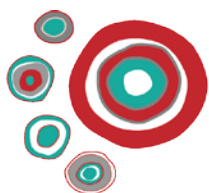


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1430 - 1600	The Mystery of Primes and the Secrets of their Reciprocal Relatedness.	C3.3
	The use of storytelling to create videos that support conceptual learning in upper secondary/tertiary mathematics education.	C4.7
	Use of data from IEA's Trends in Mathematics and Science Study (TIMSS) for analyzing factors that affect mathematics achievement across countries from different regions.	C2.3
	Utilize Number Talks to Share Authority in the Mathematics Classroom.	C3.4
1600 - 1630	Afternoon Tea	The Gallery
1630 - 1730	Topic Study Group - Strand A	
	TSG 1.1: Teaching and learning of number and arithmetic	C4.9
	TSG 1.3: Teaching and learning of algebra at secondary and tertiary levels	C4.3
	TSG 1.5: Teaching and learning of measurement	C2.2
	TSG 1.7: Teaching and learning of statistics	C4.8
	TSG 1.9: Teaching and learning of computational thinking	C4.6
	TSG 2.1: Mathematics education for students with special learning needs	C4.7
	TSG 2.2: Research on mathematical promise and giftedness	C2.4
	TSG 2.4: Culture, language and ethnicity in mathematics education	Cockle Bay Room 2
	TSG 3.11: Task design and analysis	C2.3
	TSG 3.14: Research and development in assessment in mathematics education	C4.1
	TSG 3.16: Mathematics and interdisciplinary education/STEM education	Parkside 2
	TSG 3.17: E-teaching and learning/blended teaching and learning	C2.1
	TSG 3.2: Mathematics education at tertiary level	C4.5
	TSG 3.3: Problem posing and solving in mathematics education	C3.3

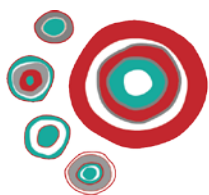


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1630 - 1730	TSG 3.5: Visualization and embodiment in mathematics education	C3.2
	TSG 3.7: The role and the use of technology in the teaching and learning of mathematics at primary and lower secondary levels	C4.11
	TSG 3.8: The role and the use of technology in the teaching and learning of mathematics at upper secondary and tertiary level	C4.10
	TSG 4.1: Preservice mathematics teacher education for the early childhood/primary level	C4.4
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	TSG 5.1: Students' identity, motivation and attitudes towards mathematics and its study	C3.6
	TSG 5.10: Methods and methodologies in mathematics education research	C4.2
	TSG 5.11: International cooperation in mathematics education	C2.5
	TSG 5.2: Mathematical literacy	C2.6
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	TSG 5.8: Philosophy of mathematics and mathematics education	E3.1



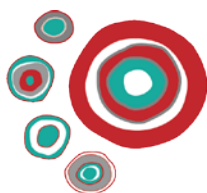
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Wednesday 10 July 2024

Time	Session	Room
0900 - 1000	Plenary Lecture	
	Plenary Lecture - Iddo Gal	Darling Harbour Theatre
1000 - 1100	Invited Lectures	
	An offer that cannot be refused" (The Godfather) opened a decade of Mathematical Reform	C3.6
	Chinese Experience on the Study of Intelligent Measurement of Mathematics Learning Quality of Primary and Secondary School Students	C3.2
	CONNECTIONS BETWEEN LEARNING HIGHER MATHEMATICS AND TEACHING MIDDLE SCHOOL MATHEMATICS: A POSSIBLE PATH	C4.1
	Constructing the Observables, Claiming the Unobservable: The Challenges of Analytic Tools in Mathematics and Statistics Education Research	C4.5
	Dialogic mathematics teaching: Exploring purpose	C4.8
	Ethnomathematics and Ubiratan D'Ambrosio at ICME-5: Adelaide-Australia. 1984	C3.5
	Exploring the development of South African learners' number sense using base ten thinking	C4.3
	From programming-rich to AI-literate and data-science-enhanced mathematics education	C4.9
	Growing relationships with mathematics to navigate confusion and challenge	Parkside 2
	Humanizing mathematics education through the video ethnography of indigenous cultural practices.	C4.6
	Illustrating the importance of designing infrastructures for mathematics teaching and mathematics teacher education	Cockle Bay Room 1
	Middle school students' reasoning about the volume of three-dimensional objects	C4.4
	Research on mathematical problem solving - Quo Vadis?	C2.3
	Series and networks of problems in the teaching of discrete mathematics	C3.3
Teaching Financial Numeracy in Mathematics Classrooms: Beyond Adding Money	C4.11	

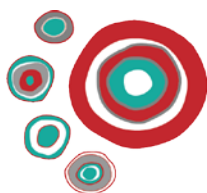


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1000 - 1100	The Impact of National Open Class on Teachers' Perceived Beliefs Through Reflection	C3.4
	Values of Mathematics Teachers: Insights from the MTeach Experience in Brunei Darussalam	Cockle Bay Room 2
	We are losing future mathematicians: An analysis of factors associated with graduating secondary students' fear of the pursuit of a mathematics-related college major	C4.10
	WHAT DO WE LEARN WITH TEACHERS ABOUT LANGUAGE RESPONSIVE TEACHING AS THEY START TO DO LESSON STUDY?	C3.1
	Workshops	
	Back to Basics - Teaching Math with Pen and Paper.	E3.3
	Coding in the Mathematics Classroom, Is There a Place for It and Can It Encourage Deeper Exploration?	C4.7
	Collaborative Note Crafting and Creation: A refreshing learning experience for students and educators in building notes for assessments.	C2.5
	Culturally Responsive Teaching and Learning in Elementary Mathematics (International Perspectives).	C2.1
	Explore explicit teaching practices: ensure students know what to do and why.	C2.2
	Exploring Pattern Blocks.	E3.2
	Fold, Flex, Learn: Hands-on Exploration of Some Old and New Flexagons and the Math Behind Them.	C4.2
From Traditional to Digital: Modernizing the Teaching and Learning of Algebra with Equation Editing Tools.	E3.4	
Touch Interactive Blocks: Bridging Theory and Technology in Mathematics Education.	C2.6	
Using Hip-Hop Based Education in Mathematics as Praxis	C2.4	
1100 - 1130	Morning Tea	The Gallery
1130 - 1230	Topic Study Group - Strand B	
	TSG 1.10: Teaching and learning of discrete mathematics	E3.1
	TSG 1.2: Teaching and learning of early algebra	C4.10
	TSG 1.4: Teaching and learning of geometry	C3.5



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1130 - 1230	TSG 1.6: Teaching and learning of probability	C4.7
	TSG 1.8: Teaching and learning of calculus	C3.6
	TSG 2.3: Mathematics and creativity; mathematical competitions; mathematical challenge	C4.9
	TSG 2.5: Ethnomathematics and First Nations/Indigenous people's mathematics and mathematics education	C3.4
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	TSG 3.1: Mathematics education at early childhood and primary level	Parkside 2
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	TSG 3.15: Research and development in testing (national and international) in mathematics education	C2.6
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	TSG 3.4: Mathematical applications and modelling in mathematics education	Cockle Bay Room 1
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	TSG 4.8: Knowledge and practice of mathematics teacher educators	C4.6
	TSG 5.12: Popularization of mathematics	C2.2

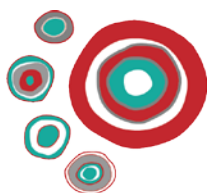


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1130 - 1230	TSG 5.5: Social and political dimensions of mathematics education	Cockle Bay Room 2
	TSG 5.6: Research and development on mathematics curriculum	C4.2
	TSG 5.7: Mathematics education in and for work; lifelong mathematics education including adult education	C3.1
	TSG 5.9: Theories in mathematics education	C2.1
1230 - 1400	Lunch	The Gallery
1400 - 1530	National Presentations	
	Cambodia, National Presentation	Parkside 2
	Kenya, National Presentation	Cockle Bay Room 1
	ICMI Affiliate Sessions	
	ADIMA - Association of Western and North African Didactics of Mathematics	C3.6
	EARCOME - East Asia Regional Conferences in Mathematics Education	C4.1
	ERME - European Society for Research in Mathematics Education	C3.3
	ICTMA - International Community of Teachers of Mathematical Modelling and Applications	C4.9
	Survey Reports	
	ICME-15 Survey Report: Challenges and perspectives of mathematics assessment	C4.8
	ICME-15 Survey Report: Interdisciplinary exchange among Mathematics Education, Psychology, and Neuroscience	C4.10
	ICME-15 Survey Report: Statistics and data science education as a vehicle for empowering citizens	C2.3
	Workshops	
	Breaking down Combinations to develop Computational thinking.	C2.2
Create your own digital escape game for math education (from primary school or university).	C3.5	

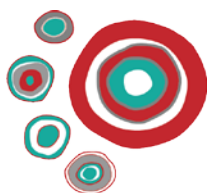


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1400 - 1530	Exploring Assessment of Mathematical Proficiency.	C2.6
	Exploring the Impact of Language on Mathematics Learning.	C4.2
	MathTASK: Opportunities for teachers and teacher educators to reflect on specific classroom situations about mathematics and its teaching.	E3.1
	Numbers, Matrices, Polynomials and Polynomial Zeros – Learning from Analogy.	C3.4
	Powers of the Universe: Empowering students with powers of ten notation.	C2.1
	The Quantitative Reasoning Assessment Framework in Action.	C2.5
	Translation and grammatical issues in the PISA items. Potential biases in the interpretation of students' answers.	C4.6
1530 - 1600	Afternoon Tea	The Gallery
1600 - 1730	Discussion Groups	
	Advancing Mathematics Education through Networks, Outreach, and Inclusion: Case of CANPS	C4.1
	Approximations of Practice in Teacher Education: Challenges and Affordances across Cultural Contexts	C2.2
	Building intuitions about quantities: An overlooked pathway to democratic access to mathematics?	C2.4
	Developing an international research agenda for e-assessment	C2.5
	Epistemology, history and sociology in mathematics teachers' education: interactions and implementations	C2.1
	Gender and Mathematics Education: Contemporary Perspectives and Challenges	C3.5
	History of Mathematics Education: Accomplishments and open questions	C4.4
	How can (post)colonised developing countries in the Pacific and South East Asia overcome neocolonial mathematics?	C2.6
	ICMI Awardees' multi-media online resources (AMOR): Making the main trends in mathematics education more visible	Cockle Bay Room 2
	Integration of Computational Thinking in School Mathematics Curricula Nationally and Locally	C3.6
Lesson Study for Curriculum Design and Development	Cockle Bay Room 1	

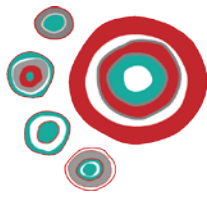


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1600 - 1730	Lesson-Centered Professional Development for Supporting Collaborative Cross-National Teacher Learning: Opportunities and Challenges	C4.8
	Leveraging strengths of cross-cultural studies to overcome structural and systemic barriers to meaningful change in equitable mathematics education	C4.2
	Logic for mathematics and computing education	E3.4
	Mathematical modelling as a transformational tool, IMMC as a catalyst for change	C4.11
	Mathematical Problem-Posing Processes	C4.7
	Mathematics Education and the Socio-Ecological	Parkside 2
	Mathematics Education in the Age of Artificial Intelligence	C4.5
	Mathematics teacher education for a challenging future: What counts and what doesn't	C3.4
	Non-University Tertiary Mathematics Education: An opportunity to democratize mathematics education	C3.1
	Promoting Equity, Diversity, and Inclusion in Publishing Mathematics Education Research	E3.2
	Researching the expertise of mathematics teacher educators [MTEs]	C4.10
	Statistics Education and ChatGPT	E3.1
	STEM curricula in the era of the Fourth Industrial Revolution (4IR) and Artificial Intelligence (AI).	C4.3
	Supporting out-of-field teachers of mathematics: local and national program development, research and implementation.	C2.3
	Supporting Teacher Development and Retention	C4.9
	Teaching and Learning Linear Algebra	E3.3
	The mathematics and statistics education community's contributions to assist displaced people and to establish global peace and justice	C4.6
	The role of mathematics in financial education for informed citizenship	C3.3
	What it Means to Develop and Sustain Mathematics Education Research Partnerships	C3.2



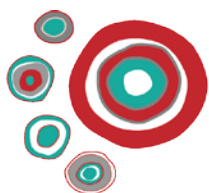
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Thursday 11 July 2024 (Excursion Day)

Time	Session	Room
-	Excursion Day <i>There is no Congress program sessions running on Thursday 11 July 2024.</i>	Offsite / Various



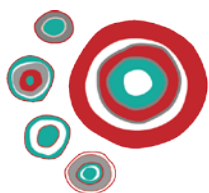
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Friday 12 July 2024

Time	Session	Room
0900 - 1030	ICMI Study Reports	
	Reports on ICMI Studies	Pyrmont Theatre
	National Presentations	
	Lithuania, National Presentation	Parkside 2
	Realm of Aotearoa/New Zealand (including Niue and the Cook Islands), National Presentation	Cockle Bay Room 1
	ICMI Affiliate Sessions	
	Africa ICMI Association (AFRICMA)	C3.4
	HPM - International Study Group on the Relations between the History and Pedagogy of Mathematics	C2.3
	ISDDE - International Society for Design and Development in Education	C4.10
	MERGA - Mathematics Education Research Group of Australasia	C2.6
	WFNMC - World Federation of National Mathematics Competitions	C2.5
	Workshops	
	Analysing classroom interaction: A data session.	C3.5
	Assessing mathematical modelling tasks in the primary and secondary classroom.	C4.8
	Being curious about data and exploring statistical questions.	C4.7
	Design Session: Designing activities to develop higher-order skills such as problem-solving, reasoning, critical thinking, and creative thinking in students.	C4.3
	Design Your Own embedded Mediated Field Experience (e-MFE).	C3.1
	Empowering Teachers: The Impact of Teachers' Self-Efficacy and Innovative Maths Teaching Practices on the Social-Emotional Wellbeing of Secondary Math Learners.	C2.1

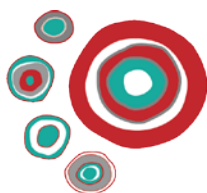


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0900 - 1030	Exploring the Mathematical Modeling Process through Building Scale Models.	E3.1
	From coffee to coaching, MathsCraft to classrooms – a journey in problem-solving.	C4.6
	Integrating First Nations Knowledge, History and Culture into Mathematics Education.	C3.6
	Interdisciplinary educational experiences and mathematical games for learning: what and how do we evaluate our students?	C3.2
	Olympiad Problems in the Secondary Classroom.	C2.2
	Reviving Ancient Wisdom: Vedic Mathematics for Modern Learning.	C4.9
	Starting from textbooks to reflect on interdisciplinarity between mathematics and physics and on mathematics teacher education.	E3.3
	Teaching Mathematical Logic Through Language and Sets	C4.2
	The 10-omat and the 100-Net: new hands-on manipulatives for the learning and teaching of place value and initial arithmetic.	E3.4
	The Applied Mathematics Mentorship Program – Mathematics of the SpaceX Dragon 2: How Los Angeles Engineers Ensure a Safe Return to Earth.	C4.1
	Using Networked Improvement Communities to Guide Efforts to Transform Mathematical Sciences Education.	C2.4
	Using popular culture for mathematical modelling.	E3.2
What's in a Name: Leveraging Mathematics to Explore Identity and Culture.	C3.3	
1030 - 1100	Morning Tea	The Gallery
1100 - 1230	Topic Study Group - Strand A	
	TSG 1.1: Teaching and learning of number and arithmetic	C4.9
	TSG 1.3: Teaching and learning of algebra at secondary and tertiary levels	C4.3
	TSG 1.5: Teaching and learning of measurement	C2.2
	TSG 1.7: Teaching and learning of statistics	C4.8
	TSG 1.9: Teaching and learning of computational thinking	C4.6

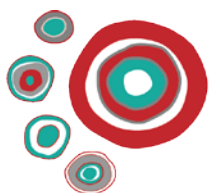


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1100 - 1230	TSG 2.1: Mathematics education for students with special learning needs	C4.7
	TSG 2.2: Research on mathematical promise and giftedness	C2.4
	TSG 2.4: Culture, language and ethnicity in mathematics education	Cockle Bay Room 2
	TSG 3.11: Task design and analysis	C2.3
	TSG 3.14: Research and development in assessment in mathematics education	C4.1
	TSG 3.16: Mathematics and interdisciplinary education/STEM education	Parkside 2
	TSG 3.17: E-teaching and learning/blended teaching and learning	C2.1
	TSG 3.2: Mathematics education at tertiary level	C4.5
	TSG 3.3: Problem posing and solving in mathematics education	C3.3
	TSG 3.5: Visualization and embodiment in mathematics education	C3.2
	TSG 3.7: The role and the use of technology in the teaching and learning of mathematics at primary and lower secondary levels	C4.11
	TSG 3.8: The role and the use of technology in the teaching and learning of mathematics at upper secondary and tertiary level	C4.10
	TSG 4.1: Preservice mathematics teacher education for the early childhood/primary level	C4.4
	TSG 4.4: In-service mathematics teacher education and mathematics teacher professional development for secondary level	Cockle Bay Room 1
	TSG 4.5: Knowledge in/for teaching mathematics at primary level	C3.4
	TSG 5.1: Students' identity, motivation and attitudes towards mathematics and its study	C3.6
	TSG 5.10: Methods and methodologies in mathematics education research	C4.2
	TSG 5.11: International cooperation in mathematics education	C2.5
	TSG 5.2: Mathematical literacy	C2.6
	TSG 5.3: Cognition, learning sciences, and neurosciences in mathematics education	C3.1



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1100 - 1230	TSG 5.4: The role of the history of mathematics in mathematics education	C3.5
	TSG 5.8: Philosophy of mathematics and mathematics education	E3.1
1230 - 1400	Lunch	The Gallery
1400 - 1500	Plenary Lecture	
	Plenary Lecture - Jill Adler	Darling Harbour Theatre
1500 - 1600	Invited Lectures	
	A research path through maintaining dragging, task design with digital technology and struggling students	C4.1
	Alliance of Indigenous Math Circles Strengthening Identity	C4.4
	Amidst wars, resource scarcity, and a rapidly accelerating and globalizing technology: Ethnomathematics, its 40th anniversary, and the search for an agenda responsive to contemporary challenges	C4.11
	Diagrams, justification, and proof	Cockle Bay Room 2
	Exploring the relationship between South African preservice teachers' experience, confidence and proficiency in geometry	Parkside 2
	Language and conceptual development in mathematics learning and teaching	C3.3
	Leveraging Bilingualism to Broaden Participation of Latinx Students in Mathematics and Computing	C4.9
	Making mathematics the centrepiece of a modern financial education	C3.6
	Mathematical Science Education to Develop Citizens Capable of Participating in Democratic Activities	C4.10
	Productive teacher noticing: The key to unlocking responsive teaching in mathematics classrooms.	Cockle Bay Room 1
	Teaching practices in problem solving. Collaborative research to study the processes of devolution and institutionalization.	C2.3
	Time and Mathematics Education	C4.5
	Workshops	
	Ask and Listen – Using formative assessment and questioning to improve student achievement.	C2.6

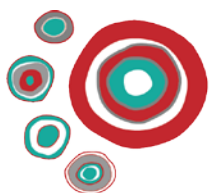


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1500 - 1600	Computer Science Unplugged! -- Computational Thinking in Your Classroom.	E3.1
	Creating New Pathways for Black Learners of Mathematics	C2.4
	Decolonizing mathematics when demodeling it by using the child's uncolonized 2D bundle-numbers with units.	E3.3
	Dynamic Design in Geometric Learning: Navigating through Simulation Games in Primary Education amidst predictable, unpredictable, and unexpected elements.	E3.2
	Socio-Emotional Learning Strategies for Deflating Math Anxiety in Secondary Classrooms.	C2.1
	Teaching mathematics to students with mental health challenges in the post pandemic school setting	C2.2
	Truncated octahedron and its space filling.	C4.2
1600- 1630	Afternoon Tea	The Gallery
1630 - 1800	Topic Study Group - Strand B	
	TSG 1.10: Teaching and learning of discrete mathematics	E3.1
	TSG 1.2: Teaching and learning of early algebra	C4.10
	TSG 1.4: Teaching and learning of geometry	C3.5
	TSG 1.6: Teaching and learning of probability	C4.7
	TSG 1.8: Teaching and learning of calculus	C3.6
	TSG 2.3: Mathematics and creativity; mathematical competitions; mathematical challenge	C4.9
	TSG 2.5: Ethnomathematics and First Nations/Indigenous people's mathematics and mathematics education	C3.4
	TSG 2.6: Mathematics education in under-resourced contexts	C2.5
	TSG 3.1: Mathematics education at early childhood and primary level	Parkside 2
	TSG 3.10: Research on mathematics classroom practice at secondary level	C4.1
	TSG 3.12: Research and development on textbooks and resources for learning and teaching mathematics	C3.2

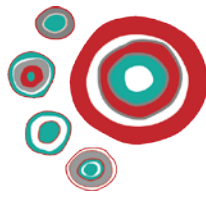


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1630 - 1800	TSG 3.13: Language and communication in the mathematics classroom	C3.3
	TSG 3.15: Research and development in testing (national and international) in mathematics education	C2.6
	TSG 3.18: Data science teaching and learning	C4.4
	TSG 3.4: Mathematical applications and modelling in mathematics education	Cockle Bay Room 1
	TSG 3.6: Reasoning, argumentation and proof in mathematics education	C4.5
	TSG 3.9: Research on mathematics classroom practice at primary level	C2.3
	TSG 4.2: Preservice mathematics teacher education for the secondary level	C4.11
	TSG 4.3: In-service mathematics teacher education and mathematics teacher professional development for primary level	C4.3
	TSG 4.6: Knowledge in/for teaching mathematics at secondary level	C2.4
	TSG 4.7: Affect, beliefs, and identity of mathematics teachers	C4.8
	TSG 4.8: Knowledge and practice of mathematics teacher educators	C4.6
	TSG 5.12: Popularization of mathematics	C2.2
	TSG 5.5: Social and political dimensions of mathematics education	Cockle Bay Room 2
	TSG 5.6: Research and development on mathematics curriculum	C4.2
	TSG 5.7: Mathematics education in and for work; lifelong mathematics education including adult education	C3.1
	TSG 5.9: Theories in mathematics education	C2.1



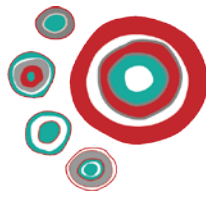
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Saturday 13 July 2024

Time	Session	Room
0900 - 1030	Plenary Panel	
	Plenary Panel: Mathematics education effectively responds to humanity's problems	Darling Harbour Theatre
1030 - 1100	Morning Tea	The Gallery
1100 - 1230	Discussion Groups	
	Advancing Mathematics Education through Networks, Outreach, and Inclusion: Case of CANPS	C4.1
	Approximations of Practice in Teacher Education: Challenges and Affordances across Cultural Contexts	C2.2
	Building intuitions about quantities: An overlooked pathway to democratic access to mathematics?	C2.4
	Developing an international research agenda for e-assessment	C2.5
	Epistemology, history and sociology in mathematics teachers' education: interactions and implementations	C2.1
	Gender and Mathematics Education: Contemporary Perspectives and Challenges	C3.5
	History of Mathematics Education: Accomplishments and open questions	C4.4
	How can (post)colonised developing countries in the Pacific and South East Asia overcome neocolonial mathematics?	C2.6
	ICMI Awardees' multi-media online resources (AMOR): Making the main trends in mathematics education more visible	Cockle Bay Room 2
	Integration of Computational Thinking in School Mathematics Curricula Nationally and Locally	C3.6
	Lesson Study for Curriculum Design and Development	Cockle Bay Room 1
	Lesson-Centered Professional Development for Supporting Collaborative Cross-National Teacher Learning: Opportunities and Challenges	C4.8
	Leveraging strengths of cross-cultural studies to overcome structural and systemic barriers to meaningful change in equitable mathematics education	C4.2
	Logic for mathematics and computing education	E3.4

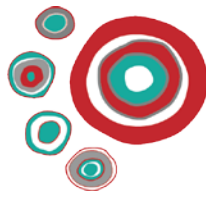


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1100 - 1230	Mathematical modelling as a transformational tool, IMMC as a catalyst for change	C4.11
	Mathematical Problem-Posing Processes	C4.7
	Mathematics Education and the Socio-Ecological	Parkside 2
	Mathematics Education in the Age of Artificial Intelligence	C4.5
	Mathematics teacher education for a challenging future: What counts and what doesn't	C3.4
	Non-University Tertiary Mathematics Education: An opportunity to democratize mathematics education	C3.1
	Promoting Equity, Diversity, and Inclusion in Publishing Mathematics Education Research	E3.2
	Researching the expertise of mathematics teacher educators [MTEs]	C4.10
	Statistics Education and ChatGPT	E3.1
	STEM curricula in the era of the Fourth Industrial Revolution (4IR) and Artificial Intelligence (AI).	C4.3
	Supporting out-of-field teachers of mathematics: local and national program development, research and implementation.	C2.3
	Supporting Teacher Development and Retention	C4.9
	Teaching and Learning Linear Algebra	E3.3
	The mathematics and statistics education community's contributions to assist displaced people and to establish global peace and justice	C4.6
	The role of mathematics in financial education for informed citizenship	C3.3
What it Means to Develop and Sustain Mathematics Education Research Partnerships	C3.2	
1230 - 1400	Lunch	The Gallery
1400 - 1500	Topic Study Group - Strand B	
	TSG 1.10: Teaching and learning of discrete mathematics	E3.1
	TSG 1.2: Teaching and learning of early algebra	C4.10

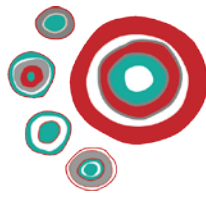


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1400 - 1500	TSG 1.4: Teaching and learning of geometry	C3.5
	TSG 1.6: Teaching and learning of probability	C4.7
	TSG 1.8: Teaching and learning of calculus	C3.6
	TSG 2.3: Mathematics and creativity; mathematical competitions; mathematical challenge	C4.9
	TSG 2.5: Ethnomathematics and First Nations/Indigenous people's mathematics and mathematics education	C3.4
	TSG 2.6: Mathematics education in under-resourced contexts	C2.5
	TSG 3.1: Mathematics education at early childhood and primary level	Parkside 2
	TSG 3.10: Research on mathematics classroom practice at secondary level	C4.1
	TSG 3.12: Research and development on textbooks and resources for learning and teaching mathematics	C3.2
	TSG 3.13: Language and communication in the mathematics classroom	C3.3
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	TSG 3.9: Research on mathematics classroom practice at primary level	C2.3
	TSG 4.2: Preservice mathematics teacher education for the secondary level	C4.11
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	TSG 4.6: Knowledge in/for teaching mathematics at secondary level	C2.4
	TSG 4.7: Affect, beliefs, and identity of mathematics teachers	C4.8
	TSG 4.8: Knowledge and practice of mathematics teacher educators	C4.6

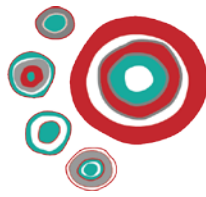


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1400 - 1500	TSG 5.12: Popularization of mathematics	C2.2
	TSG 5.5: Social and political dimensions of mathematics education	Cockle Bay Room 2
	TSG 5.6: Research and development on mathematics curriculum	C4.2
	TSG 5.7: Mathematics education in and for work; lifelong mathematics education including adult education	C3.1
	TSG 5.9: Theories in mathematics education	C2.1
1500 - 1600	Invited Lectures	
	Cognitive principles of genetic constructivism	C4.4
	Deepening our understanding of how primary school teachers use games to support mathematics instruction	Cockle Bay Room 1
	Insights on Including Tasks Linked to Teaching Secondary Mathematics in Undergraduate Mathematics Courses	C4.8
	Mathematics as a Spiritual Being	C3.6
	Responsive Mathematics Teaching: Attending to Challenges of its Implementation in Resource Constraint Contexts	C4.10
	Revisiting and extending mathematical problem-solving foundations through the systematic and coordinated use of digital technologies	C4.5
	Secondary mathematics teachers' professional noticing: A cross-cultural perspective	C4.1
	THE FUTURE OF MATHEMATICS LEARNING: EDUTAINMENT AS A CATALYST FOR 21ST CENTURY SKILLS DEVELOPMENT	C3.3
	The Role of Mathematics Education in Responding to Disruptive Times	Parkside 2
	Workshops	
	Designing for Meaningful Mathematical Engagement: Tools, Tasks & Prompts.	E3.4
	Empowering Everyone with Mental Math: Accessible Strategies.	C3.1
	Evidencing the impact of mathematics learning support.	C4.6
Experiencing Mathematics on a Miniature Scale: Structured Practical Activities	C4.2	



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1500 - 1600	Hands OFF! Building school leader capacity in embedding mathematical literacy across the curriculum.	C4.3
	Inclusive and Interdisciplinary Pedagogies to Lower Mathematical Barriers for First-Year STEM Students.	C2.6
	Integration of computational thinking in K-12 mathematics education: Workshop on programming-based mathematical task designs	C4.11
	Let's Learn Modern Mathematics of Gauss and Galois Through Folding Regular Pentagons with Circular Origami.	E3.1
	Place-Based Mathematics that Matters— Activating International Critical Mathematics Networks.	C3.5
	Thinking Flexibly: Using games to develop number sense.	C2.1
1600 - 1630	Afternoon Tea	The Gallery
1630 - 1730	Topic Study Group - Strand A	
	TSG 1.1: Teaching and learning of number and arithmetic	C4.9
	TSG 1.3: Teaching and learning of algebra at secondary and tertiary levels	C4.3
	TSG 1.5: Teaching and learning of measurement	C2.2
	TSG 1.7: Teaching and learning of statistics	C4.8
	TSG 1.9: Teaching and learning of computational thinking	C4.6
	TSG 2.1: Mathematics education for students with special learning needs	C4.7
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	TSG 3.16: Mathematics and interdisciplinary education/STEM education	Parkside 2
	TSG 3.17: E-teaching and learning/blended teaching and learning	C2.1

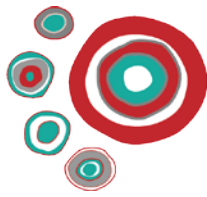


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1630 - 1730	TSG 3.2: Mathematics education at tertiary level	C4.5
	TSG 3.3: Problem posing and solving in mathematics education	C3.3
	TSG 3.5: Visualization and embodiment in mathematics education	C3.2
	TSG 3.7: The role and the use of technology in the teaching and learning of mathematics at primary and lower secondary levels	C4.11
	TSG 3.8: The role and the use of technology in the teaching and learning of mathematics at upper secondary and tertiary level	C4.10
	TSG 4.1: Preservice mathematics teacher education for the early childhood/primary level	C4.4
	TSG 4.4: In-service mathematics teacher education and mathematics teacher professional development for secondary level	Cockle Bay Room 1
	TSG 4.5: Knowledge in/for teaching mathematics at primary level	C3.4
	TSG 5.1: Students' identity, motivation and attitudes towards mathematics and its study	C3.6
	TSG 5.10: Methods and methodologies in mathematics education research	C4.2
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	TSG 5.2: Mathematical literacy	C2.6
	TSG 5.3: Cognition, learning sciences, and neurosciences in mathematics education	C3.1
	TSG 5.4: The role of the history of mathematics in mathematics education	C3.5
	TSG 5.8: Philosophy of mathematics and mathematics education	E3.1



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Sunday 14 July 2024

Time	Session	Room
0900 - 1000	Plenary Lecture	
	Plenary Lecture - Jason Sharples	Darling Harbour Theatre
1000 - 1130	Closing Ceremony	Darling Harbour Theatre
1130 - 1230	Farewell Gathering	The Gallery