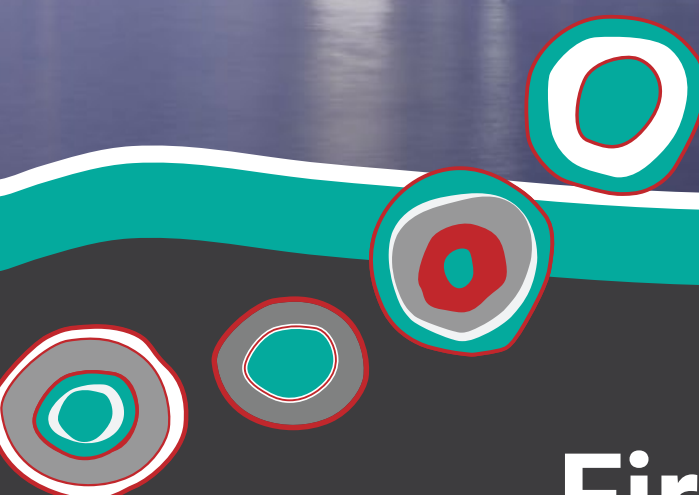


15th International Congress on Mathematical Education

7-14 July 2024 • ICC Sydney, Australia

Come and be counted



First Announcement

Acknowledging Australia's First Nations people

The 15th International Congress on Mathematical Education will be held in Sydney on the traditional lands of the Gadigal people. The Gadigal are a clan of the Eora Nation, which was the name given to the coastal First Nations Australian peoples living around modern-day Sydney. 'Eora' means 'here' or 'from this place.'

The Eora Nation were saltwater people who lived on the rich resources of the harbour and rivers. There were over thirty clan groups among the Eora, and several languages were spoken including Darug and Dharawal.

Prior to the arrival of the British First Fleet in 1788, the ancestors of the Eora had lived in this region for over 60,000 years. Despite the destructive impact of first contact with the British, Eora culture survived. Many places around the harbour remained important hunting, fishing, and camping grounds for the Eora long after British settlement, and continue to be culturally significant today.

We acknowledge the Gadigal people of the Eora Nation as the Traditional Custodians of the Country that ICME-15 will be held upon. We recognise their continuing connection to the land and waters, and thank them for protecting this coastline and its ecosystems since time immemorial. We acknowledge that they never ceded sovereignty. We pay our respects to Elders past, present, and emerging, and extend that respect to all First Nations people present during ICME-15.



HOSTED BY



PROUDLY MANAGED BY



Table of Contents

Acknowledging Australia's First Nations people.....	2
Introduction.....	4
ICME-15: Come and Be Counted.....	4
Invitation from the International Program Committee.....	5
International Program Committee.....	6
The Consortium for Mathematics Education (CoME).....	7
International Commission on Mathematical Instruction (ICMI).....	10
ICME – International Congress on Mathematical Education.....	11
Program Overview: What to expect.....	12
Initiated by the IPC.....	12
Led by participants.....	13
The Scientific Program for ICME-15.....	14
Plenary Lectures.....	14
Plenary Panels.....	15
Awardee Lectures.....	15
Survey Reports.....	16
Invited Lectures.....	18
Topic Study Groups.....	20
Discussion Groups.....	23
Workshops.....	23
Posters.....	23
Affiliated Organisation activities.....	23
National Presentations.....	23
Early Career Researcher Day.....	24
Proceedings.....	25
Sponsorship and Exhibition Opportunities.....	26
Event Information.....	27
Who should attend?.....	27
Congress language.....	27
Registration.....	27
ICME Solidarity Fund.....	28
Venue location.....	28
About Sydney.....	30
Networking Events and Social Activities.....	32
Welcome Reception.....	32
Opening Ceremony.....	33
Excursion Day.....	33
About us.....	34
Hosts.....	34
Foundation Sponsors.....	34
Key Dates.....	35
Contact us.....	35

Introduction

ICME-15: Come and Be Counted

The 15th International Congress on Mathematics Education (ICME-15) will be held over 8 days at the International Convention Centre (ICC), Sydney from 7 – 14 July 2024.

ICME-15 is the largest international Congress on Mathematics Education and is the meeting point for some 3,000+ mathematics educators, mathematicians, researchers, teachers and resource producers over eight days. July 2024 will mark the first time in eight years that the international mathematics education community is able to come together in person.

Australia has a substantial core of mathematics educators with extensive experience in delivering and participating in international meetings. These educators truly understand ICMI and its members, as well as the aims of ICME and its scientific program.

ICME-15 in Sydney will offer participants an innovative congress that builds on the well-established ICME program, headlined by a blend of established and emerging thought leaders from around the world, with an emphasis on sharing and discussion among delegates. The congress will provide an exhibition component that promises to be interactive, relevant and dynamic, with hands-on demonstrations and presentations.

ICME-15 delegates will enjoy state-of-the-art meeting spaces, and technologies that provide enhanced networking capability. Delegates will be able to enjoy a seamless and hassle-free visitor experience in Sydney, a destination that consistently ranks as one of the world's most desirable cities in which to live and work.





Invitation from the International Program Committee

Invitation from the International Program Committee

On behalf of the International Program Committee for ICME-15, it is an honour and it is a great pleasure for me to invite you to what will be a truly unique and exciting initiative for mathematics and statistics education in Australia, the Asia-Pacific region and the whole world.

Our aim is for ICME-15 to be an inclusive event at which people who are passionate about mathematics and statistics education can come together, and connect with like-minded colleagues from around the globe – to create lasting local, regional and global legacies in our field. The IPC has high ambitions for the Congress. We are working towards a Congress that, among other things:

- Addresses geographic and other forms of disadvantage in relation to mathematics teaching and learning
- Has a central focus on Indigenous mathematics informing global efforts in mathematics education
- Includes a focus on undergraduate teaching of mathematics and statistics,
- Has an impact in classrooms by informing the work of teachers, and
- Facilitates and supports people to people connections.

The program of ICME-15 will build on the best of the traditional components, which have served to make the past ICMEs so successful. We are incorporating some key innovations designed to promote even greater levels of participation. Some of these enhancements to the program are outlined in this First Announcement. Other initiatives will be revealed as the program takes shape.

The successful bid to host ICME-15 in Sydney was the work of the Consortium for Mathematics Education (CoME), a group of eight leading national organisations in the mathematical sciences. This broad base of continuing commitment to ICME-15 is a clear indication of the importance these leading organisations ascribe to supporting the further development of mathematics and statistics education in this country and globally.

I look forward to keeping you informed of progress with ICME-15 over the coming months and, ultimately greeting you to Sydney. Together we will make ICME-15 a resounding success. Come and be counted!

Prof Kim Beswick

Convenor ICME-15

Professor of Mathematics Education

Head, School of Education

The University of New South Wales

International Program Committee

Kim Beswick	ICME-15 Convenor, Chair of the IPC, Sydney, Australia
Will Morony	Local Organising Committee Chair for ICME-15, Adelaide, Australia
Frederick K.S. Leung Ex officio	ICMI President The University of Hong Kong, Hong Kong
Jean-Luc Dorier Ex officio	ICMI Secretary General University of Geneva Switzerland
Jianpan Wang Ex officio	Congress Chair of ICME14, Shanghai, China
Olive Chapman	University of Calgary, Calgary, Canada
David Gómez	Instituto de Ciencias de la Educacion (ICEd), Universidad de O'Higgins, Chile
Berinderjeet Kaur	National Institute of Education (NIE), Singapore
Boris Koichu	Weizmann Institute, Israel
Nelly León	Universidad Pedagógica Experimental Libertador, Caracas, Venezuela
Katie Makar	University of Queensland, Australia
Chris Matthews	University of Technology Sydney, Australia
Cristina Ochoviet	National Administration of Public Education (ANEP), Uruguay
Cristina Sabena	University of Turin, Italy
Patrick Scott	New Mexico State University
Yoshi Shimizu	University of Tsukuba Thukuba, Japan
Moustapha Sokhna	Cheikh Anta Diop University Dakar, Senegal
Hamsa Venkatakrishnan	Dublin City University, Ireland
Nada Vondrová	Charles University, Prague, Czech Republic
Margaret Walshaw	Massey University, New Zealand

The Consortium for Mathematics Education (CoME)

The Consortium for Mathematics Education (CoME) is a group of eight leading national organisations in the mathematical sciences in Australia. The Consortium developed the successful bid for ICME-15 and remains committed to ensuring the success of the Congress.

The members of CoME and their committee members are:



1. Aboriginal and Torres Strait Islander Mathematics Alliance (ATSIMA)

Chris Matthews

<https://scienceandtechnologyaustralia.org.au/profile/aboriginal-and-torres-strait-islander-mathematics-alliance/>

ATSIMA was officially established in 2015 as a not-for-profit organisation with the vision that all Aboriginal and Torres Strait Islander learners will be successful in mathematics. The basis of ATSIMA's work is to create innovative pedagogies in mathematics that connect Aboriginal and Torres Strait Islander culture to the teaching and learning of mathematics.



2. Australian Association of Mathematics Teachers (AAMT)

Allan Dougan

<https://aamt.edu.au/>

A federation of associations of teachers of mathematics from all Australian States and Territories. AAMT's aims are to support and enhance the work of teachers, promote the learning of mathematics, and represent and promote interests in mathematics education.



3. Australian Council of Heads of Mathematical Sciences (ACHMS)

Anthony Dooley

<http://achms.org.au/>

With a membership based on the convocation of the heads of mathematical sciences departments in all Australian universities that is augmented by representatives from other key organisations, ACHMS provides a broad base for input to policy and discussion on matters of concern to the mathematics and statistics community.



4. Australian Mathematical Sciences Institute (AMSI)

Tim Marchant

<https://amsi.org.au/>

A joint venture of Australia's universities, government agencies and learned societies. AMSI's mission is to deliver radical improvement of the mathematical sciences capacity and capability in the Australian community through the support of high quality mathematics education for all young Australians. AMSI aims to improve the supply of mathematically well-prepared students entering tertiary education by direct involvement with schools, support mathematical sciences research and its applications including cross-disciplinary areas and public and private sectors and enhance the undergraduate and postgraduate experience of students in the mathematical sciences and related disciplines.



5. Australian Mathematical Society (AustMS)

Chris Tisdall

<https://austms.org.au/>

A national society for the mathematics profession in Australia which aims to promote and extend mathematical knowledge and its applications.



6. Mathematical Association of New South Wales (MANSW)

Darius Samojlowicz

<https://www.mansw.nsw.edu.au/>

MANSW is the professional association for teachers of Mathematics in New South Wales, and an affiliate of the AAMT. For over 100 years, MANSW has provided professional learning opportunities for teachers, journals, conferences and stimulating activities for students.



7. Mathematics Education Research Group of Australasia (MERGA)

Catherine Attard

<https://www.merga.net.au/>

An association which aims to promote, share, disseminate, and co-operate on quality research on mathematics education for all levels particularly in Australasia; to provide permanent means for sharing of research results and concerns among all members through regular publications and conferences; to seek means of implementing research findings at all decision levels to the teaching of mathematics and to the preparation of teachers of mathematics; and to maintain liaison with other organisations with similar interests in mathematics education or educational research.

8. Statistical Society of Australia (SSA)

Peter Howley

<https://www.statsoc.org.au/>

A national society representing Australian and overseas statisticians which aims to support and further the work of state statistical societies representing professional statisticians.



International Commission on Mathematical Instruction (ICMI)



ICME Congresses are held under the auspices of ICMI. Devoted to the development of mathematical education at all levels, the International Commission on Mathematical Instruction (ICMI) is a commission of the International Mathematical Union (IMU), an international non-governmental and nonprofit scientific organisation whose purpose is to promote international cooperation in mathematics.

Founded at the International Congress of Mathematicians in Rome, 1908 with the initial mandate of analyzing the similarities and differences in the secondary school teaching of mathematics among various countries, ICMI has considerably expanded its objectives and activities in the years since.

ICMI offers a forum to promote reflection, collaboration and the exchange and dissemination of ideas on the teaching and learning of mathematics from primary to university level. ICMI works to stimulate the creation, improvement and dissemination of recent research findings and of the available resources for instruction (e.g. curricular materials, pedagogical methods, the appropriate use of technology, etc.).

The Commission aims to facilitate the spread and understanding of information on all aspects of the theory and practice of contemporary mathematical education from an international perspective. ICMI has the additional objective of providing a link between educational researchers, curriculum designers, educational policy makers, teachers of mathematics, mathematicians, mathematics educators and others interested in mathematical education around the world.

ICMI takes initiative in inaugurating appropriate activities, publications and other programs designed to further the development of mathematical education and to improve the public appreciation of mathematics. It is also charged with the conduct of IMU's activities on mathematical or scientific education. In the pursuit of its objectives, ICMI cooperates with various thematic and regional groups formed within or outside its own structure.

Among international organisations devoted to mathematics education, ICMI is distinctive because of its close ties with the professional communities of mathematics.



ICME – International Congress on Mathematical Education

A major responsibility of ICMI is to plan for the quadrennial International Congress on Mathematical Education (ICME), held under the auspices of ICMI. The ICMI Executive Committee (EC) chooses the hosting country, appoints an International Program Committee (IPC) to form the scientific program and select presenters, and oversees the progress of the Congress preparations.

The IPC works independently from ICMI, but the ICMI President and ICMI Secretary-General are ex officio members of the IPC. The practical and financial organisation of an ICME is the independent responsibility of a Local Organising Committee (LOC), again under the observation of general ICMI guidelines. The ICME Chair or the Convenor chairs the IPC, and the head of the LOC participates in the IPC meetings.

The aim of the Congress is to present the current states and trends in mathematics education research and in the practice of mathematics teaching at all levels. It also aims to facilitate the spread and understanding of information on all aspects of the theory and practice of contemporary mathematical education from an international perspective. ICMI has the additional objective of providing a link between educational researchers, curriculum designers, educational policy makers, teachers of mathematics, mathematicians, mathematics educators and others interested in mathematical education around the world.

The Congress will gather a broad spectrum of participants, such as researchers in mathematics education, teacher educators, practising teachers, mathematicians, and others interested in mathematics education.

The series of ICMEs was launched at the initiative of ICMI President Hans Freudenthal, with the first Congress in Lyon, France. ICME is held every four years, with the most recent, ICME-14, being held in Shanghai in 2021 (delayed from 2020 due to the COVID-19 pandemic).

ICME-15 will be held at the International Convention Centre (ICC), Sydney from 7 - 14 July 2024. This marks 40 years since ICME-5 was held in Adelaide, Australia in August 1984 – the only other time that an ICME has been held in the southern hemisphere.

Program Overview: What to expect

Our aim is for ICME-15 to be an inclusive event at which people who are passionate about mathematics and statistics education can come together and connect with like-minded colleagues from around the globe to create lasting local, regional, and global legacies in our field.

The ICME-15 scientific program includes a number of components that are under the control of the IPC, along with several that are in the hands of ICME-15 participants:

Activities managed by the IPC	Participant-led activities
Plenary Lectures	Topic Study Groups
Plenary Panels	Discussion Groups
Survey Team reports	Workshops
ICMI Study reports	Posters
Awardee Lectures	
Invited Lectures	
Affiliated Organisation activities	
National Presentations	

Initiated by the IPC

Plenary Lectures

Plenary Lectures recognise substantial and continuing contributions to the growth of the field of Mathematics Education.

Plenary Panels

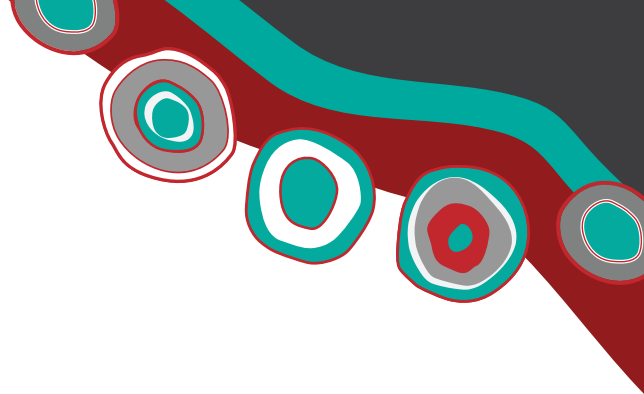
Plenary panels promote the development of understanding between different communities of mathematics educators by opening up debate in a contested area of work in the field.

Survey Reports

Surveys emphasise new developments and progress on key themes or issues that have been emerging in the last three or four ICMEs by surveying the state-of-the-art in relation to the theme or issue. Teams will have a particular emphasis on identifying and characterising important new knowledge, recent developments, new perspectives, and emergent issues.

ICMI Study Reports

To report on, and thereby create interest in, the findings and outputs of each study in the series of ICMI Studies. Details of the Studies to be reported at ICME-15 will be provided in the Second Announcement.



Awardee Lectures

ICMI recognises outstanding contributions to different aspects of the field of mathematics education through prestigious awards – the Felix Klein Award, the Hans Freudenthal Award and the Emma Castelnuovo Award. The Awards are presented at the Opening Ceremony, with the awardees invited to present a lecture in a subsequent session.

Invited Lectures

Over 60 lectures will present the work and reflections of both established and emerging researchers.

Affiliated Organisation activities

An opportunity for ICMI Affiliated Organisations to raise awareness about, and promote their work and contributions to mathematics education to Congress participants. A list of ICMI Affiliated Organisations can be found on the [ICMI website](#).

National Presentations

A small set of countries or regions highlight their achievements and challenges in mathematics education by presenting a snapshot of important areas of scholarship and work.

Led by participants

Topic Study Groups

The set of Topic Study Groups (TSGs) provides a coverage of important topics in mathematics education. Each topic is an identifiable area of scholarship relevant to contemporary mathematics education. There is a balance between classic topics and completely new ones, but no intention to be fully comprehensive. The focus for each TSG is provided in the Discussion Paper developed at the start of the process. The work of each TSG is an opportunity for sharing insights and progress on the topic through the submission of papers, the discussion during the sessions, and the synthesis of a report and potentially other outputs.

Discussion Groups

Discussion Groups gather Congress participants who are interested in discussing, in a genuinely interactive way, certain challenging, controversial or emerging issues and dilemmas of interest to an international or regional audience. The topics for Discussion Groups are proposed by participants.

Workshops

Workshops provide hands-on experience to participants wishing to learn or try something new. They tend to be targeted at a specific type of participant, for example, teachers (from pre-school to university), graduate students, or researchers, who are interested in learning or trying out something through active participation. The workshops focus on experiences pertaining to research or teaching concerning a well-defined theme of common interest. The topics for Workshops are proposed by participants.

Posters

Posters that report some aspect of a participant's work represent an important way of sharing between participants.

The Scientific Program for ICME-15

Plenary Lectures

The IPC is delighted to announce that the following scholars will be presenting Plenary Lectures at ICME-15.



Jared Field

Mathematics and Statistics
The University of Melbourne, Australia

Jared is a McKenzie Fellow broadly interested in the intersection of mathematics, ecology and evolutionary biology. He is currently working on human life-history theory, Bayesian modelling of behaviour and Indigenous Australian marriage rules and genetics. Jared completed his undergrad in mathematics and French literature at the University of Sydney. Following this, he completed a Doctor of Philosophy at the University of Oxford under the supervision of Professor Mike Bonsall and Professor Philip Maini.



Jill Adler

University of the Witwatersrand
President of the International Commission on Mathematical Instruction
South Africa

Jill Adler holds the SARCHI Mathematics Education Chair at the University of the Witwatersrand, which focuses on research and development in secondary mathematics education, and is the 2017-2020 President of the International Commission on Mathematical Instruction (ICMI). Jill has spearheaded several large-scale teacher development projects, the most recent, within the Chair ambit, begun in 2009, is called the Wits Maths Connect Secondary project. This work builds on her research on teaching in multilingual classrooms, and teacher professional development. Jill is a Visiting Professor of Mathematics Education at King's College London, UK. She is the recipient of numerous awards, the most significant of which are the 2012 Academy of Science of South Africa (ASSAf) Gold Medal for Science in the Service of Society, and the 2015 Freudenthal Award.



Rina Zazkis

Professor, Faculty of Education
Canada Research Chair in STEM Teaching and Learning
Associate Member, Department of Mathematics, SFU, Canada

Rina Zazkis is a Professor of Mathematics Education at the Faculty of Education and associate member in the Department of Mathematics at the Simon Fraser University, Canada. Her research is in the area of undergraduate mathematics education, with a general focus on mathematical knowledge of teachers, and the ways in which this knowledge is developed, modified, and used in teaching. She holds a position of Tier 1 Canada Research Chair, a prestigious recognition of excellence in research and research training. She serves as editor-in-chief of the Journal of Mathematical Behaviour.



Iddo Gal

Associate Professor (PhD) Emeritus, Israel

Iddo Gal is an Associate Professor (Retired), Dept. of Human Services, University of Haifa, Israel. Iddo enjoys multidisciplinary interests; his activities focus on the development and assessment of statistical literacy and adult numeracy, and on management of service processes and empowerment of workers and clients of service organisations. Among other things, he chaired the Numeracy Expert Group of the OECD Survey of Adult Skills (PIAAC), is a Past-President of the International Association for Statistical Education (IASE), past-Editor of the Statistics Education Research Journal, and working with UNESCO on assessing adult numeracy for the U.N. Sustainable Development Goals.

Plenary Panels

The IPC is keen for ICME-15 to challenge and inform participants' views on important issues in mathematics education. ICME-15 will see panellists address two major challenges currently facing mathematics educators across the globe:

Plenary Panel 1

Mathematics education effectively responds to humanity's problems.

This panel will take the form of an Oxford debate. Panellists will explore the interaction between mathematics education and issues of enormous importance to society, such as climate change, pandemics, international conflicts, and ongoing inequities. What role, if any, should mathematics education play beyond ensuring that countries have mathematical literate citizens? What are the ethical and practical challenges?

Plenary Panel 2

What counts as evidence in mathematics education?

Policy makers, teachers, and other stakeholders require evidence in support of calls for change in mathematics teaching and learning. This panel will explore what counts as evidence in mathematics education, including forms of evidence, and the implications for research agendas and methodologies that arise from the need for evidence. How can mathematics education researchers influence the understanding of what constitutes quality evidence? How can we ensure that research evidence is heard, understood, and recognised?

Awardee Lectures

Lectures presented by the scholars who receive ICMI Awards at ICME-15. Participants will hear about the work and lives of these inspirational leaders in mathematics education in one hour lectures.

Survey Reports

The IPC has commissioned teams to survey developments and progress on five key themes in mathematics education that have arisen in recent years. Each team will report their findings and recommendations at the Congress.

Survey 1:

Challenges and perspectives of mathematics assessment

Educational assessment is a broad and complex task that encompasses the global educational process from the formative and summative assessment of learning to the functioning of the system itself. This study will address the teaching-learning-assessment cycle that teachers handle in their practice of teaching mathematics.

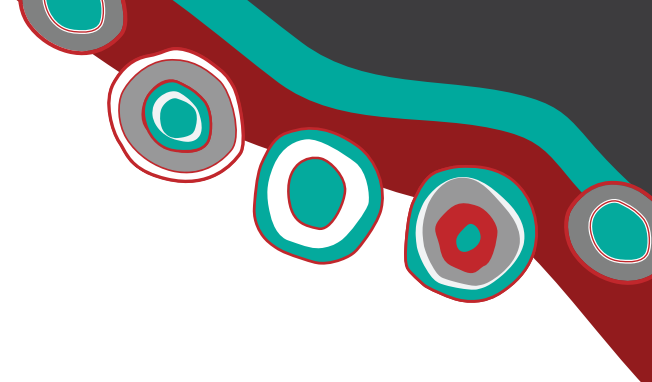
One of the challenges teachers faced during the COVID-19 pandemic was precisely how to assess content learning and the achievement of mathematical skills and competencies in remote education. The situation experienced revealed critical knots in the assessing practice not only in the sense to ensure the validity and reliability of the results, but also in relation to the formative dimension of the evaluation, the relevance of matching the ways of teaching with those of assessing, and the evaluation of capacities that are put into play in complex mathematical tasks such as problem solving and modelling. Considering that remote and hybrid education are here to stay, this survey will address the challenges, perspectives, and the latest trends and developments in the field of assessment in mathematics in these modalities.

Survey 2:

Mathematics education and Indigenous perspectives

Indigenous people represent about 5% of the world population, living in more than 90 countries across the globe. In most countries they are minority ethnic groups that face threats to their native languages, culture and ways of knowing, economic livelihood, and preservation of their natural environment. Mathematics education, as a cultural and contextualised matter, should promote a close relationship between indigenous learners and their cultural heritage and worldview, which would promote a respectful, equitable, and valued integration into society whilst understanding Indigenous approaches to mathematics, and how that knowledge is used in daily lives and in decision making.

This survey will address issues related to emerging theoretical and methodological perspectives in mathematics education in Indigenous contexts, their challenges and opportunities, as well as the kind of understanding and learnings that are expected from the Indigenous worldviews of mathematizing, and the challenges and opportunities that arise for mathematics teachers, educators, and education researchers when working in Indigenous contexts.



Survey 3:

Statistics and data science education as a vehicle for empowering citizens

Data are increasingly pervasive in our daily lives. School statistics has not kept up with the ways that citizens engage with data such as navigating Twitter feeds, using AI for identifying photos, and streaming GPS data to live feed into Google maps to estimate travel times. Data science has created breakthroughs to make more data more accessible, including data that doesn't fit standard formats.

Data science education has enabled school students to draw from massive public depositories where data are repurposed and wrangled with other data and machine language algorithms in new, creative ways. Privacy, ethics, and awareness of the non-objective nature of data—such as underlying gender/ racial bias in how and whose data are used to train algorithms—are at the forefront of data science education.

This survey will examine work underway to prepare and arm citizens with data-based evidence to influence and improve citizen power. The outcome can influence national curricula as countries become aware of how far the school curriculum must progress to keep up with data usage in the world.

Survey 4:

Interdisciplinary exchange among Mathematics Education, Psychology, and Neuroscience

Research in Mathematics Education has increasingly incorporated perspectives from other disciplines, and entire research fields like Numerical Cognition, have emerged from the interaction between Mathematics Education, Psychology, and Neuroscience. Mathematics Education has borrowed concepts from these disciplines such as mindset, working memory, and cognitive inhibition, as well as research methods such as response time paradigms, eye tracking, and neuroimaging.

This Survey aims at mapping these interactions and looking at them from a critical perspective, asking how effective has this interdisciplinary exchange become, how has it supported the advance of Mathematics Education research and theories, what extent have the results of this research been integrated into Mathematics Education, what impact these interactions and findings have had on mathematics teaching and learning in the classroom, and what challenges need to be addressed by these fields in order to foster more effective work in the future.

Survey 5:

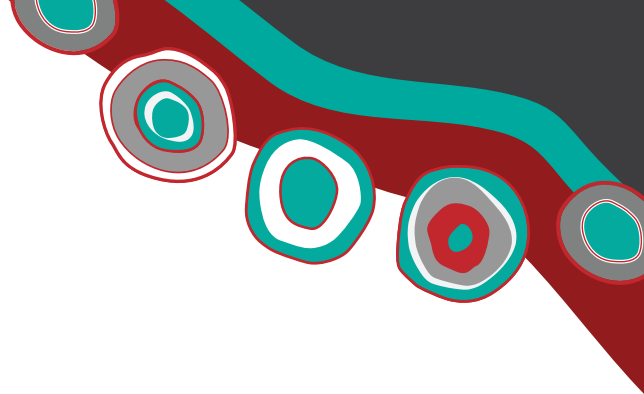
Design-based research and its role in mathematics education research and practice

The methodology of design-based research plays an important role in mathematics education research. It would be beneficial to ponder on quality issues of such research. When can we say that its results are robust enough so that we could spread them more widely? What are the barriers and important prerequisites for conducting it?

Invited Lectures

The IPC is delighted to announce that the following scholars will be presenting Invited Lectures at ICME-15:

Danielle Amour	Australia
Anna Baccaglioni-Frank	Italy
Sarah Bansilal	South Africa
Lisa Lunney Borden	Canada
Arindam Bose	India
Sylvia Celedon-Pattichis	USA
Man Ching Esther Chan	Australia
Theodore Chao	USA
Daniel Chazan	USA
Aurélie Chesnais	France
Ban Heng Choy	Singapore
Edward Doolittle	Canada
Toya Frank	USA
Vince Geiger	Australia
Pedro Gómez	Colombia
Katalin Gosztonyi	Hungary
Yufeng Guo	China
Anahí Huencho	Chile
Jodie Hunter	New Zealand
Ladislav Kvasz	Czech Republic
Woong Lim	Korea
Uldarico Malaspina	Peru
James A. Mendoza Álvarez	USA
Siun nic Mhuiri	Ireland
Roger Miarka	Brazil
Mikio Miyazaki	Japan
Verónica Molfino	Uruguay



Samantha Morrison	South Africa
Tracey Muir	Australia
Lisnet Mzwaadzangati	Malawi
Oi-Lam Ng	Hong Kong
Keiichi Nishimura	Japan
Samet Okumus	Turkey
Jeongsuk Pang	Korea
Ioannis Papadopoulos	Greece
Hugo Parra	Venezuela
Alon Pinto	Israel
Anita Rampal	India
Benjamin Rott	Germany
Ángel Ruiz	Costa Rica
James Russo	Australia
Luz Manuel Santos Trigo	Mexico
Veronica Sarungi	Tanzania
Carly Sawatzki	Australia
Sara Scaglia	Argentina
Masitah Shahrill	Brunei
Nathalie Sinclair	Canada
Romina Ann Soon Yap	Philippines
Alejandra Sorto	USA
Guangming Wang	China
Keith Weber	USA
Stefan Zehetmeier	Austria



Additional scholars are considering their invitations: refer to the ICME-15 website in the coming months for the full list of speakers. Details of the topics of Invited Lectures will be provided later.

Topic Study Groups

After much deliberation the IPC has identified the 54 Topic Study Groups (TSGs) for ICME-15. The TSGs will be conducted in two separate streams, enabling participants to take part in two TSGs.

The two streams will be determined by the IPC at the next meeting in early February 2023.

The topics for TSGs at ICME-15 are:

- 1.1 Teaching and learning of number and arithmetic

- 1.2 Teaching and learning of early algebra

- 1.3 Teaching and learning of algebra at secondary and tertiary levels

- 1.4 Teaching and learning of geometry

- 1.5 Teaching and learning of measurement

- 1.6 Teaching and learning of probability

- 1.7 Teaching and learning of statistics

- 1.8 Teaching and learning of calculus

- 1.9 Teaching and learning of computational thinking

- 1.10 Teaching and learning of discrete mathematics

- 2.1 Mathematics education for students with special learning needs

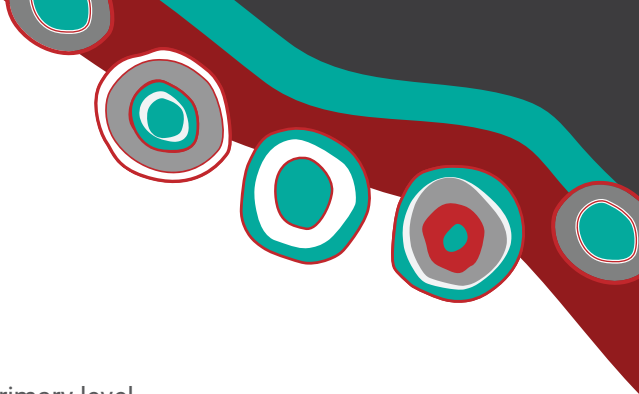
- 2.2 Research on mathematical promise and giftedness

- 2.3 Mathematics and creativity; mathematical competitions; mathematical challenge

- 2.4 Culture, language and ethnicity in mathematics education

- 2.5 Ethnomathematics and First Nations/Indigenous people's mathematics and mathematics education

- 2.6 Mathematics education in under-resourced contexts

- 
- 3.1 Mathematics education at early childhood and primary level

 - 3.2 Mathematics education at tertiary level, incl mathematics for non-specialists/mathematics as a service subject at tertiary level

 - 3.3 Problem posing and solving in mathematics education

 - 3.4 Mathematical applications and modelling in mathematics education

 - 3.5 Visualisation and embodiment in mathematics education

 - 3.6 Reasoning, argumentation and proof in mathematics education

 - 3.7 The role and the use of technology in the teaching and learning of mathematics at primary and lower secondary levels

 - 3.8 The role and the use of technology in the teaching and learning of mathematics at upper secondary and tertiary levels

 - 3.9 Research on mathematics classroom practice at primary level

 - 3.10 Research on mathematics classroom practice at secondary level

 - 3.11 Task design and analysis

 - 3.12 Research and development on textbooks and resources for learning and teaching mathematics

 - 3.13 Language and communication in the mathematics classroom

 - 3.14 Research and development in assessment in mathematics education

 - 3.15 Research and development in testing (national and international) in mathematics education

 - 3.16 Mathematics and interdisciplinary education/STEM education

 - 3.17 E-teaching and learning/blended teaching and learning

 - 3.18 Data science teaching and learning

- 4.1 Pre-service mathematics teacher education for the early childhood/primary level

- 4.2 Pre-service mathematics teacher education for the secondary level

- 4.3 In-service mathematics teacher education and mathematics teacher professional development for primary level

- 4.4 In-service mathematics teacher education and mathematics teacher professional development for secondary level

- 4.5 Knowledge in/for teaching mathematics at primary level

- 4.6 Knowledge in/for teaching mathematics at secondary level

- 4.7 Affect, beliefs, and identity of mathematics teachers

- 4.8 Knowledge and practice of mathematics teacher educators

- 5.1 Students' identity, motivation and attitudes towards mathematics and its study

- 5.2 Mathematical literacy

- 5.3 Cognition, learning sciences, and neurosciences in mathematics education

- 5.4 The role of the history of mathematics in mathematics education

- 5.5 Social and political dimensions of mathematics education

- 5.6 Research and development on mathematics curriculum

- 5.7 Mathematics education in and for work; lifelong mathematics education including adult education

- 5.8 Philosophy of mathematics and mathematics education

- 5.9 Theories in mathematics education, e.g. semiotics

- 5.10 Methods and methodologies in mathematics education research

- 5.11 International cooperation in mathematics education

- 5.12 Popularisation of mathematics

Teams of five people will be responsible for all aspects of the work of each TSG. They will be supported by a member of the IPC who will act as liaison between the TSG team and the IPC.

Papers describing the work of each TSG will be available in late 2022, along with a call for abstracts of papers and posters that address issues identified in the Description Paper. The details of this process and applicable dates will be provided in due course, but in general abstracts will be due in the first part of 2023, with all contributions finalised in September 2023.

Discussion Groups

The IPC see Discussion Groups as integral to fostering international collaboration and sharing on topics that are of importance and relevance to participants in different countries. Topics may include challenging, controversial or emerging issues, and dilemmas of interest.

Participants wishing to organise a Discussion Group at ICME-15 are invited to submit an initial proposal using the proforma provided. If accepted, organisers of that Discussion Group are responsible for organising the two 90-minute sessions which will be included in the program schedule for ICME-15. A sub-committee of the IPC will take an active role in helping those involved become important components of the Scientific Program that engage and inform colleagues in a genuinely interactive way.

[Proforma Application for Discussion Group](#)

Workshops

Workshops are an important means for participants to share practical strategies and approaches to their work as researchers and teachers. A call for participants to propose Workshops for inclusion in the program of ICME-15 will be released with the Second Announcement in May 2023.

Posters

Participants at ICME-15 will have the opportunity present an aspect of their work as a poster, either within a TSG, or as a general contribution. Time will be allocated in the program for the presentation and discussion of posters.

Affiliated Organisation activities

Leaders of both the regional and thematic ICMI Affiliated Organisations are invited to use ICME-15 as an opportunity to create greater awareness of their work with colleagues attending the Congress. A 90-minute session will be dedicated to the Affiliated Organisations. Some organisations will also arrange more extensive satellite activities in association with ICME-15. The Conference Secretariat will contact the leaders of these Affiliated Organisations to support their presence in the ICME-15 program.

National Presentations

A small set of countries or regions highlight their achievements and challenges in mathematics education by presenting a snapshot of important areas of scholarship and work, identified through an application process conducted by the IPC. These presentations typically consist of a series of oral presentations, with time for questions and discussion. The session time will be one and a half hours.

Applications to conduct a National Presentation should be submitted by the National Representatives of ICMI member states, or academic groups representing ICMI member states. Applications should be made using the proforma (below) by 31 December 2022.

The IPC will select the National Presentations for ICME-15 at the next meeting in early February 2023.

[Proforma Application for National Presentation](#)

Early Career Researcher Day

Early Career Researcher Day

Sunday 7 July 2022

ICME-15 is pleased to offer a special activity for early career researchers who are attending ICME-15. The Early Career Researcher Day will directly precede the main ICME-15 Congress. Early career researchers, attending ICME-15, are welcome to participate in this day. There will be a small additional charge for participation.

The aim of this day is to provide early career researchers with opportunities to develop their research competencies in various areas, establish new contacts, build networks among themselves, and to meet and work with international experts in the field. Further information about the Early Career Researcher Day will be made available during 2023.



Proceedings



The ICME-15 proceedings, the official record of the Congress, will be published in two stages: pre-congress and post-congress.

Pre-congress proceedings

The pre-congress proceedings will be published on the ICME-15 website and will include the program of all ICME-15 activities and associated written contributions.

Participants will also be able to access this information before and during the Congress through a smartphone app which they can use to create personalised daily schedules with links to abstracts of presentations, and the papers and posters relevant to sessions they attend.

The pre-congress proceedings will be prepared with the aid of firm timelines, standard templates for electronic submission of abstracts, papers, posters and session outlines, and close monitoring of the progress of individual and group activities.

Post-congress proceedings

The post-congress proceedings will be published with open access through the ICMI website. The post-congress proceedings will include:

- Presentations at the Opening and Closing Ceremonies including the President's Address, the Secretary-General's Report, and the Awardee citations
- Plenary Lectures and Plenary Panels
- Survey Team reports
- Invited Lectures
- National Presentations

The post-congress proceedings will be the responsibility of the Editor-in-Chief who will be appointed at the second meeting of the IPC in February 2023. The Editor-in-Chief will be assisted by an editorial board.

Negotiation of Arrangements with additional publisher(s) for the publication of ICME-15 post-congress proceedings will be finalised in 2023.

Sponsorship and Exhibition Opportunities

Through ICME-15, we can share our practices and experiences, learn from each other, and find common ground for advancing mathematics education in the Asia Pacific region and across the globe by providing a platform to address the challenges for mathematics education shared by many countries.

A successful congress relies on the valued support provided by sponsors and exhibitors.

A Prospectus of opportunities will be available from late 2022. We can then begin to lay the foundations for reciprocal relationship, cementing your commitment to promote the Congress internally and to your networks. This may be through your on-going work, or a new initiative you can tap into the Congress to promote through this prestigious International event.

This Congress will attract the pre-eminent mathematics educators in the world and we hope to share the possibilities of this once in a generation opportunity with you.

If you would like to share in our journey, please email emmab@icmsaust.com.au to receive a copy of the Prospectus and to discuss ways in which your organisation can leverage from this meeting.



Event Information

Who should attend?

ICME-15 is for everyone involved in mathematics education – mathematicians, researchers, teachers at all levels, teacher educators, administrators, curriculum developers, and resource producers. Connected by a shared passion for mathematics and statistics education, this event will bring together colleagues from more than 100 countries around the globe.

This will be only the second time the Congress has been held in the southern hemisphere, the other being in Adelaide in 1984. As such, ICME-15 is a particular opportunity for those in the Asia-Pacific region to connect with the global mathematics education community.

At this time it is envisaged that participation in ICME-15 will be in-person only – there are no plans to provide synchronous online access to the program of ICME-15.

Congress language

The official Congress language will be English.

Registration

Participant	Accompanying Person
Early bird AUD \$905	Early bird N/A
Standard AUD \$995	Standard AUD \$395

What's included in with registration?

- Attendance for one person to the 15th International Congress on Mathematical Education, 7-14 July 2024.
- A ticket to both the welcome reception function on Sunday 7 July, and the opening ceremony on Monday 8 July.
- Morning and afternoon tea on 8-14 July at the ICC Sydney (except Thursday 11 July)
- A ticket to an excursion of your choice on Thursday 11 July (supplementary costs may be required for some options)
- Networking and social events run in conjunction with ICME-15.

Please note:

- Registration fees are in Australian Dollars (AUD)
- Early bird registrations will close 31 March 2024
- Registered Accompanying persons are entitled to attend the Welcome Reception, Opening Ceremony, the Closing Ceremony and other functions run in conjunction with ICME-15

ICME Solidarity Fund

One of the aims of the ICME congresses is to have a balanced representation of presenters and participants from all over the world. Since ICME-8, a 10% levy on all ICME registrations is allocated to the ICME Solidarity Fund.

The Solidarity Fund provides grants to participants from less affluent regions of the world to support and increase their participation in ICME congresses. Grants provide partial support with registration fees, accommodation and travel costs incurred in attending ICME-15.

Participants from eligible countries who are accepted to contribute to the Scientific Program of ICME-15 are eligible for support from the Solidarity Fund. Applications will be assessed by a sub-committee of the IPC.

Successful applicants for solidarity grants will be informed of the outcome by 30 November 2023. Applicants are also advised to seek funding from other sources.

Venue location

International Convention Centre Sydney

www.iccsydney.com.au

The International Convention Centre Sydney (ICC Sydney) is Australia's first fully-integrated convention, events, exhibition, and entertainment centre, giving participants and exhibitors everything they need to have an outstanding experience at ICME-15.

ICC Sydney features striking contemporary design, leading technology, and excellent meeting and exhibition spaces. Designed with accessibility in mind, ICC Sydney has equitable and step-free access to every conference, exhibition, and entertainment space. Accessible toilets, ramps, and spacious passenger lifts are available throughout the venue, and Braille is provided on room door signage and fixed directional signage. Infra-red emitted hearing augmentation systems are in place in all meeting rooms and theatres.

Situated at the intersection of Sydney's academic, cultural and technology precincts, ICC Sydney provides convenient access to Australia's most cosmopolitan city. The emerging financial, dining and retail precinct of Barangaroo is nearby. There are also numerous galleries, theatres and concert halls within easy reach, and the bustling city centre is only a short walk away.



ICC Sydney is easily reached by train, bus, and light rail, and is only a 10 minute walk from Central and Town Hall train stations. Taxis and trains are also available to and from Sydney Airport, which is just 8km away.

View the Google map here:

<https://goo.gl/maps/Us8ZtK8ovPb5vRSu5>

About Sydney

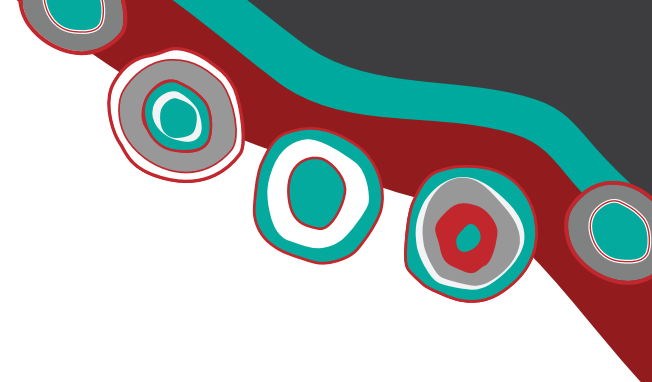
Sydney offers a diverse experience for ICME-15 visitors, including the very best in sightseeing and dining, abundant cultural and sporting events, and close proximity to diverse tourist regions including wineries, spectacular coastlines, and national parks.



Dining in Sydney

While Sydney is famous for its fine dining and internationally renowned chefs, our multicultural city also boasts an affordable variety of delicious cuisines. Within walking distance of the ICME-15 venue there are dozens of takeaways venues, restaurants, cafes, and cocktail bars to explore around Darling Harbour. The nearby busy streets of Haymarket's Chinatown, Australia's largest Chinatown, is another popular dining and entertainment precinct with restaurants, bars, and shops pulsating into the night and just a short stroll from the Congress venue.

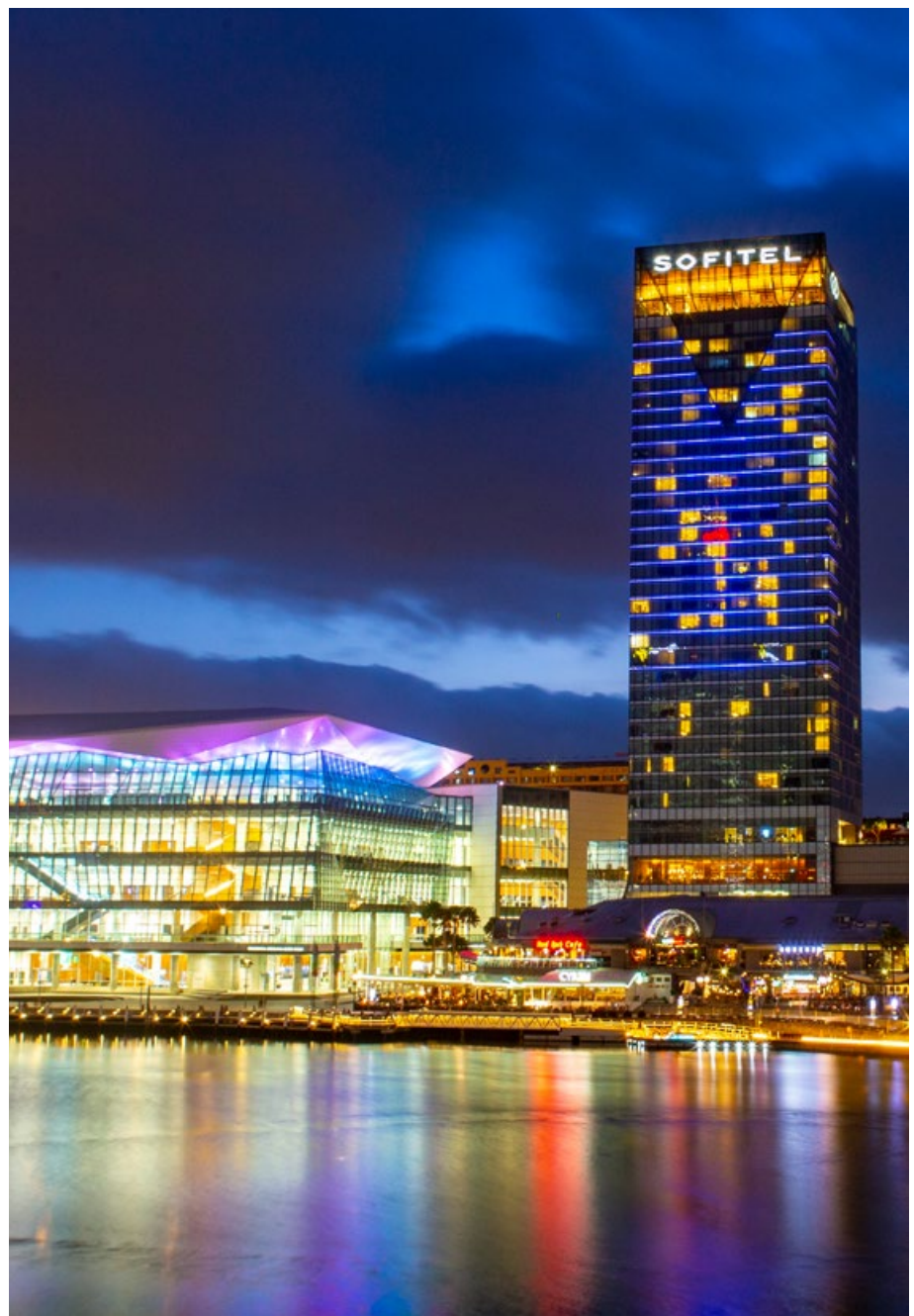




Accommodation

Sydney and its beautiful surrounds offer an extensive choice of accommodation to suit every style and budget within walking distance of the ICC Sydney. Whether you are looking for affordable student accommodation, traditional hotel suites, contemporary serviced apartments, or boutique hotels, Sydney can meet the needs of ICME-15 participants.

There are so many wonderful ways to explore Sydney and Australia as part of your visit to ICME-15. A curated of popular and unique destinations for you to explore is available on the ICME-15 website.



Networking Events and Social Activities

Connect and collaborate with fellow Congress participants to help shape change for the future of mathematical education.

Welcome Reception

Sunday 7 July 2024

The Welcome Reception is your first opportunity to make connections and build international friendships. Enjoy Australian hospitality, delicious canapés, delightful company, and live entertainment on the eve of the opening of ICME-15.



Opening Ceremony

Monday 8 July 2024

Join us at the Opening Ceremony to set the stage for the 15th International Congress on Mathematical Education. Live Australian cultural performances kick off an exciting week of connection, collaboration, and learning.



Excursion Day

Thursday 11 July

Enjoy visiting some of the attractions in Sydney and environs with other participants. You will be able to choose from a range of options when you register.



About us

Hosts

Hosted by the University of New South Wales, Sydney

Proudly managed by ICMS Australasia Pty Ltd

Supported by Business Events Sydney, the New South Wales Government and Business Events Australia



Foundation Sponsors

The Foundation sponsors are:

- The University of Adelaide
- Monash University
- The University of Sydney
- The University of New England
- The University of Queensland



Key Dates

Milestone	Dates
Expressions of Interest to Participate	Now Open
First Announcement	Now Available
Proposals for National Presentations & Discussion Groups	Now Open
Proposals for National Presentations close	31 December 2022
TSG Papers and Posters processes opens	1 March 2023
Second Announcement	1 May 2023
Proposals for Workshops open	1 May 2023
Congress Registrations open	1 June 2023
Solidarity Fund applications open	1 June 2023
Proposals for Discussion Groups and Workshops close	1 November 2023
Applications for support from Solidarity Fund close	30 November 2023
Full Congress Program released on website and smartphone app	1 June 2024

Contact us

ICME-15 is proudly managed by ICMS Australasia Pty Ltd.



General Enquiries

Congress Secretariat

ICMS Australasia Pty Ltd
GPO Box 3270
Sydney NSW 2001
Australia

Telephone: +61 (0) 2 9254 5000

Email: info@icme15.com

Website: www.icme15.com



Acknowledgement of Country

We acknowledge the Traditional Owners of the lands and waters throughout Australia, and pay respect to the Elders past, present and emerging. We recognise the importance of connection to culture, land, kinship and community to the health and wellbeing of Aboriginal & Torres Strait Islander families. We acknowledge the cultural practices and traditions still carried out today and being passed down to future generations.

