



The 47th Conference of the
International Group for the
Psychology of Mathematics Education.

"Rethinking Mathematics Education Together"

PME-47

JULY 17TH-21ST
2024

AUCKLAND, NEW
ZEALAND

Rethinking Mathematics Education Together

47th Annual Meeting of the International Group for the Psychology of Mathematics Education (PME 47)

17-21 July, 2024

Auckland, New Zealand

<https://events.massey.ac.nz/pme-47-conference/>

First Announcement



MASSEY UNIVERSITY
TE KUNENGA KI PŪREHUROA
UNIVERSITY OF NEW ZEALAND

AUT

TE WĀNANGA ARONUI
O TĀMAKI MAKĀU RAU



THE UNIVERSITY OF
AUCKLAND
Te Whare Wānanga o Tāmaki Makaurau
NEW ZEALAND



Auckland Sky Tower



Sculpture "The Golden Promise" at Massey University



Massey University, Albany Campus



University of Auckland, Science Centre



AUT, School of Engineering, Computer and Mathematical Sciences building

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1. Welcome

The Local Organizing Committee of the 47th Annual Meeting of the International Group for the Psychology of Mathematics Education is pleased to invite you to attend the conference to be held in Auckland, New Zealand from July 17 to July 21, 2024.

The theme of the conference is “Rethinking mathematics education together”. This theme has been chosen to emphasize mathematics education research as a shifting field of knowledge which is developed as a collective body of research. The theme also has relevance both to the local Pacific/Oceania context as well as broader international contexts with ongoing debates related to mathematics education and research, shifts in both curriculum and pedagogical practices, and a focus on developing equitable educational systems.

We wish to welcome you to the conference in July 2024 and hope that your visit and stay in Auckland, New Zealand will be exciting, interesting, and inspiring. Our goal is to make the PME 47 conference both inclusive and welcoming for all as well as scientifically successful.

1.1. Your Hosts

PME 47 in 2024 will be co-hosted by Massey University, University of Auckland, and Auckland University of Technology. The venue for the conference will be Massey University, Albany, Auckland, and Albany Senior High School.

Massey University

Massey University College of Manawatu became Massey University of Manawatu on 1 January 1964 under the Massey University of Manawatu Act 1963. The new university had full autonomy and degree-conferring powers under the Act.

The name was shortened in 1966 to Massey University. Massey University of Manawatu enrolled 1,877 students in its first year. The university's buildings and facilities increased greatly over the next few decades to cope with growing student numbers. By December 1992, the university's total student roll was 24,675 students.

On 20 March 1993, Massey University's Auckland campus in Albany, was officially inaugurated with a tree-planting ceremony. Since then, it has been the fastest growing area of the North Shore. Strawberry gardens and dairy farms

were redeveloped in the 1980s and 1990s into 10-acre lifestyle blocks and housing.

In the late 1990s, Massey University launched its Graduate School of Business and, in partnership with Auckland College of Education, a Graduate School of Education.

Over the years the Auckland campus has grown rapidly as both domestic and international student numbers increased. This campus will be the home of PME47.

Auckland University of Technology

AUT was founded as Auckland Technical School in 1895, offering evening classes only. Daytime classes began in 1906 and its name was changed to Auckland Technical College. In 1913 it was renamed Seddon Memorial Technical College.

In the early 1960s educational reforms resulted in the separation of secondary and tertiary teaching; two educational establishments were formed; the tertiary (polytechnic) adopting the name Auckland Technical Institute (ATI) in 1963 and the secondary school continuing with the same name.

For three years they co-existed on the same site, but by 1964 the secondary school had moved to a new site in Western Springs and eventually became Western Springs College. In 1989 ATI became Auckland Institute of Technology (AIT), In 2000 AIT made history as New Zealand's first polytechnic to become a university and renamed itself Auckland University of Technology (AUT).

The University of Auckland

The University of Auckland was formally opened on 23 May 1883 as Auckland University College, part of the University of New Zealand. A disused courthouse and jail served as premises for the 95 students and four teaching staff.

In 1962, the abolition of the University of New Zealand saw the University finally become independent. New subjects such as Geography, Anthropology, Māori Studies, and Fine Arts were introduced, and there was a new focus on staff research. Many of the new and younger academics became very active researchers, as evidenced by the growing lists of staff publications. Today, the University of Auckland is the largest university in New Zealand, hosting over 40,000 students on five Auckland campuses.

1.2. About Auckland (Tāmaki Makaurau)

Tāmaki Makaurau Auckland is a multi-cultural urban oasis of food, music, arts and culture. It's where sparkling waters and lush landscapes meet city sophistication.

Tāmaki Makaurau, meaning 'isthmus of one thousand lovers', was originally a Māori settlement. After purchasing the land from the Māori, European settlers began to arrive and colonise the land. Auckland was first settled by the Māori people in approximately 1350. The Māori constructed terraced pa (fortified villages) on the volcanic peaks of the area then known as Tāmaki Makau Rau.

In 1840 the Treaty of Waitangi was signed, and Auckland was named the capital city of New Zealand. By 1865 the capital was moved to Wellington and by 1900 Auckland was New Zealand's largest city. World-class shopping and phenomenal dining are never too far from harbours, islands, native bush, and black-sand beaches. Go skydiving or whale watching, hike an ancient volcanic cone, taste local award-winning wine, or stargaze from the International Dark Sky Sanctuary of remote Great Barrier Island.

You will find the best of both worlds in Auckland, with beautiful rainforests, parks, and beaches all so close to the city centre. The Waitakere Ranges Regional Park west of the city centre has more than 250 kilometres of walking and hiking tracks through lush native rainforest, past cascading waterfalls and along a magnificent coastline. Walk through the region's largest native forest in the Hunua Ranges or explore the striking landscapes of some of Auckland's 26 regional parks, such as Duder, Shakespear, Tapapakanga or Āwhitu.

You are never far from the sea in Auckland. Bring your board to one of the black-sand surf beaches on the wild west coast – Karekare, Piha, Te Henga (Bethells), Muriwai and more. Head north to the expansive golden sands and clear waters of Tāwharanui and Pakiri. Closer to the city centre, and just a 15-minute drive from downtown Auckland, visit Mission Bay, Kohimarama or St Heliers. Enjoy a stroll along the promenade, hire a kayak or stand-up paddleboard, and refuel with some fresh fish and chips by the seaside.

Auckland has an impressive variety of restaurants, cafes, and bars to suit every taste and budget. In the inner city you will find modern dining at Britomart, Commercial Bay, Federal Street and City Works Depot. Enjoy dinner and drinks

or a casual bite on Auckland's beautiful waterfront in the Viaduct Harbour and Wynyard Quarter precincts.

Auckland has three main wine growing regions, where superb wine and stunning scenery go hand in hand. Visit Waiheke Island, known as 'the island of wine' for its 30 wineries and vineyards. North of the city discover Matakana's boutique wineries set amid picturesque coastal countryside. In the west, Kumeu is home to Auckland's oldest established vineyards and is surrounded by market gardens and organic produce.

1.3. About Aotearoa New Zealand

New Zealand is a welcoming, diverse country with a history of Māori, European, Pacific Island, and Asian immigration. This rich blend of cultures, combined with geologically fascinating landscapes and unique flora and fauna, make New Zealand an exciting country to explore.

New Zealand (Māori: Aotearoa) is an island country in the southwestern Pacific Ocean. It consists of two main landmasses—the North Island and the South Island—and over 700 smaller islands. It is the sixth-largest island country by area and lies east of Australia across the Tasman Sea and south of the islands of New Caledonia, Fiji, and Tonga. The country's varied topography and sharp mountain peaks, including the Southern Alps, owe much to tectonic uplift and volcanic eruptions. New Zealand's capital city is Wellington, and its most populous city is Auckland.

The islands of New Zealand were the last large habitable land to be settled by humans. Between about 1280 and 1350, Pacific People began to settle in the islands and then developed a distinctive Māori culture. In 1642, the Dutch explorer Abel Tasman became the first European to sight and record New Zealand.

In 1840, representatives of the United Kingdom and Māori chiefs signed the Treaty of Waitangi, which in its English version declared British sovereignty over the islands. In 1841, New Zealand became a colony within the British Empire. Subsequently, a series of conflicts between the colonial government and Māori tribes resulted in the alienation and confiscation of large amounts of Māori land. New Zealand became a dominion in 1907; it gained full statutory independence in 1947, retaining the monarch as head of state. Today, the majority of New

Zealand's population of 5.1 million is of European descent; the indigenous Māori are the largest minority, followed by Asians and Pacific peoples. Reflecting this, New Zealand's culture is mainly derived from Māori and early British settlers, with recent broadening of culture arising from increased immigration. The official languages are English, Māori, and New Zealand Sign Language, with the local dialect of English being dominant.

As a developed country, New Zealand was the first country to introduce a minimum wage, and the first to give women the right to vote. It ranks highly in international measures of quality of life, human rights, and it has low levels of perceived corruption. It retains visible levels of inequality, having structural disparities between its Māori and European populations. New Zealand underwent major economic changes during the 1980s, which transformed it from a protectionist to a liberalised free-trade economy. The service sector dominates the national economy, followed by the industrial sector, and agriculture; international tourism is also a significant source of revenue.

New Zealand is a member of the United Nations, Commonwealth of Nations, ANZUS, UKUSA, OECD, ASEAN Plus Six, Asia-Pacific Economic Cooperation, the Pacific Community and the Pacific Islands Forum.

2. Committees of PME 47

2.1. *The International Program Committee (IPC)*

The International Program Committee of PME 47 in Auckland consists of:

The International Program Committee (IPC)			
Conference Chair	Jodie Hunter	New Zealand	Massey University
Co-Chair	Tanya Evans	New Zealand	University of Auckland
	Jyoti Jhagroo	New Zealand	Auckland University of Technology
	Generosa Leach	New Zealand	Massey University
	Ofer Marmur	New Zealand	University of Auckland
PME President	Wim Van Dooren	Belgium	KU Leuven
	Ban Heng Choy	Singapore	NIE, Nanyang Technological University

	Chiara Andrà	Italy	University of Eastern Piedmont
	Kotaro Komatsu	Japan	University of Tsukuba

2.2. *The Local Organizing Committee (LOC)*

The Local Organizing Committee of PME 47 in Auckland consists of:

Local Organizing Committee (LOC)		
Conference Chair	Jodie Hunter	Massey University
Co-Chair	Tanya Evans	University of Auckland
	Pam Perger	Auckland University of Technology
	Igor' Kontorovich	University of Auckland
	Ofer Marmur	University of Auckland
	Louise Fitzgerald	Massey University
	Generosa Leach	Massey University
	Jyoti Jhargoo	Auckland University of Technology
	Kerri Spooner	Auckland University of Technology
	Priscilla Murphy	Auckland University of Technology
	John Tupouniua	Massey University

3. **PME Conference Secretariat**

3.1. *Secretariat Email Address*

For any questions regarding PME 47, please contact Jason Lamontanaro at:

PME47@massey.ac.nz

3.2. *Conference Website*

The conference website is <https://events.massey.ac.nz/pme-47-conference/> where you can find up-to-date information on matters contained within this First Announcement.

Also see the conference page on Facebook

<https://www.facebook.com/profile.php?id=61552209291645> , Instagram

https://www.instagram.com/pme47_auckland/ or X (formerly Twitter) https://twitter.com/PME47_Auckland where news and reminders are posted. General information about PME is also available on the website of the International Group for the Psychology of Mathematics Education (IGPME) at www.igpme.org.

4. About IGPME

The International Group for the Psychology of Mathematics Education (IGPME) is an autonomous body, governed as provided for in its constitution. It is an official subgroup of the International Commission for Mathematical Instruction (ICMI) and came into existence at the Third International Congress on Mathematics Education (ICME-3) held in Karlsruhe, Germany in 1976. The conference in 2024 is the 47th Annual Meeting of the International Group for the Psychology of Mathematics Education (PME 47).

4.1. The Constitution of IGPME

The constitution of PME was adopted by the Annual General Meeting (AGM) on August 17, 1980 and changed at the AGM on July 24, 1987, on August 10, 1992, on August 2, 1994, on July 18, 1997, on July 14, 2005, on July 21, 2012. PME decided to seek charitable organization status under UK law and the new constitution related to this change was accepted by the Annual General Meetings in 2018, 2019, and 2022. The name of the Charitable Incorporated Organisation (“the CIO”) is the international Group for the Psychology of mathematics Education.

The objects of the CIO are to advance the field of mathematics education for the public benefit by:

- Promoting and stimulating research.
- Organising regular educational conferences around the world.
- Supporting regional workshops around the world in general, and in under-represented regions of the world in particular.
- Collaborating with organisations with similar aims.
- Facilitating cross-disciplinary discussion and the sharing of information and research with an international emphasis.
- Helping scholars from different parts of the world establish collaborative networks to further our collective understanding of how to improve mathematics education in their respective countries.

- Providing grants to help bring scholars from under-represented regions of the world to our annual meeting.
- Disseminating our research for the benefit of improving mathematics education at the classroom, school, district, and national levels.
- Disseminating our research for the benefit of improving students' experiences with mathematics education at the classroom, school, district, and national levels.
- Disseminating our research for the benefit of improving the preparation of mathematics teachers at the university level around the world.
- Providing access to our research publications to the public.

All information concerning PME and its constitution can be found at the PME website: <http://www.igpme.org>.

4.2. Honorary Members of IGPME

Efraim Fischbein (deceased), Hans Freudenthal (deceased), and Joop Van Dormolen (deceased).

4.3. Current Board of Trustees of IGPME (IC)

Office	Person	Country/Region
President	<i>Wim Van Dooren</i>	<i>Belgium</i>
	<i>Michal Ayalon</i>	<i>Israel</i>
Vice President	<i>Christina Krause</i>	<i>Austria</i>
Portfolio Group	<i>Daniel Sommerhoff</i>	<i>Germany</i>
	<i>Ting-Ying Wang</i>	<i>Taiwan</i>
	<i>Ban Heng Choy</i>	<i>Singapore</i>
Secretary Portfolio Group	<i>Helena Johansson</i>	<i>Sweden</i>
	<i>Nicky Roberts</i>	<i>South Africa</i>
	<i>Wee Tiong Seah</i>	<i>Australia</i>

Treasurer Portfolio Group	<i>Juan Manuel Gonzalez Forte</i>	<i>Spain</i>
	<i>Tracy Helliwell</i>	<i>United Kingdom</i>
	<i>Jenni Ingram</i>	<i>United Kingdom</i>
	<i>Kotaro Komatsu</i>	<i>Japan</i>
Policy Portfolio Group	<i>Chiara Andrà</i>	<i>Italy</i>
	<i>Sean Chorney</i>	<i>Canada</i>
	<i>Nicola Hodkowski</i>	<i>United States of America</i>
	<i>Anselm Robert Strohmaier</i>	<i>Germany</i>

4.4. IGPME Administrative Manager

Dr. Khemduth Singh Angateeah

Email: info@igpme.org

5. The Scientific Program

The theme of the 47th PME conference is:

Rethinking Mathematics Education Together

The conference language is English. Papers for the proceedings must be written and presented in English. However, colleagues, including the presenters, are welcome to contribute to discussions and questions in their first languages, following a Research Report or an Oral Communication, if translation is provided by someone in the session. The scientific program includes the following activities that are explained in more detail below.

Plenary sessions (see Section 5.1)

- Plenary Lectures
- Plenary Panel

Personal presentations (see Section 5.2)

- Research Reports (RR)

- Colloquiums (CO)
- Oral Communications (OC)
- Poster Presentations (PP)

Group activities (see Section 5.3)

- Research Forums (RF)
- Working Groups (WG)
- Seminars (SE)
- Ad Hoc Meetings (AH)
- National Presentation (NP)

In addition to these activities, the conference will also offer an Early Researchers' Day (ERD), the day before the main conference (see Section 5.4).

Restrictions

All presentations have to promote the major goals of the IGPME (refer to Section 4.1). In addition, please note that there are restrictions on the number of possible contributions.

Each submission should be made by the presenting author. You are allowed to submit as the presenting author either a Research Report (including those bundled within a Colloquium) or an Oral Communication presentation but not both. In addition, you can be presenting author of a Poster Presentation, Research Forum, and Working Group. There are no restrictions for being a co-author. Note, that it is not allowed to change the presenting author after the review process.

Each conference participant may act as organiser of at most one Colloquium and as Coordinator of at most one Seminar. Note, however, it may not be compatible to be a presenter in both a Research Forum and/or a Seminar and/or a Working Group due to scheduling issues.

5.1. Plenary Sessions

5.1.1. Plenary Lectures

There will be four plenary lectures from invited speakers. Each lecturer will have 60 minutes for presentation, and a reactor will then comment on the presentation for 10 minutes. In all plenary sessions, there will be time left for questions and comments from the audience.

The plenary speakers for PME 47 are:

Mellony Graven, *Rhodes University, South Africa.*

Boris Koichu, *Weizmann Institute of Science, Israel.*

JeongSuk Pang, *Korea National University of Education, Korea.*

Keith Weber, *Rutgers University, United States of America.*

5.1.2. Plenary Panel

The Plenary Panel will be held according to the Oxford-Style debate protocol on a topic related to the theme of the conference:

Rethinking Mathematics Education Together

The panel for PME 47 consists of the following researchers:

Chair: Armando Solares Rojas, *Cinvestav, Mexico*

Kristen Lew, *Texas State University, United States of America*

Nuria Planas, *Universitat Autònoma de Barcelona, Spain*

Tony Trinick, *University of Auckland, New Zealand*

Stefan Ufer, *University of Munich, Germany*

The plenary panel will be held onsite at the venue.

5.2. Personal Presentations

5.2.1. Restrictions on number of contributions

All presentations have to promote the major goals of the IGPME (refer to Section 4.1). In addition, please note that there are restrictions on the number of possible contributions:

Restrictions on number of submissions

You are allowed to submit up to one proposal of each type (but not combine the submission of a Research Report and an Oral Communication).

Restrictions on presenting authorship

You are allowed to be presenting author of either a Research Report (including those bundled within a Colloquium) or an Oral Communication presentation, but not both. Further, you can be presenting author of a Poster Presentation,

Research Forum, and Working Group in addition. Note, that it is not possible to change the presenting author after the review process.

Each conference participant may act as organiser of at most one Colloquium and as Coordinator of at most one Seminar. Note, however, it may not be compatible to be a presenter in both a Research Forum and/or a Seminar and/or a Working Group due to scheduling issues.

5.2.2. Research Report (RR)

Research Reports should state what is new in the research, how the study builds on past research, and/or how it has developed new directions and pathways. Some level of critique must exist in all papers.

Contributions need not be limited to completed research. Ongoing studies may be submitted, provided that theoretical framework, preliminary results, and a discussion of these results appear in the text submitted. Proposals that are too similar to papers previously presented cannot be accepted. Proposals that represent new and significant contributions to research in the Psychology of Mathematics Education are especially encouraged.

Two types of papers are suitable for Research Reports:

1. Reports of empirical studies

Reports of empirical studies should cover, as a minimum, the following:

- a statement regarding the focus of the submitted paper;
- the study's theoretical framework;
- references to the related literature;
- a description of the research methods used; and
- a sample of the data and the results (additional data can be presented at the conference but some data ought to accompany the proposal).

2. Theoretical and philosophical essays

These should cover, as a minimum, the following:

- a statement regarding the focus of the submitted paper;
- a statement about the paper's theoretical or philosophical framework;
- references to related literature;
- a clearly articulated statement regarding the author's position on the paper's focus or theme; and

- implications for existing research in the respective area.

Submission procedure and restrictions

Research Report Proposals papers are to be written in English, with an abstract in English (and one in another language, if desired by the author) of at most 10 lines. The document may be up to 8 pages long and must be in line with the formatting guidelines provided by the conference organizers. The PME 47 template for Research Report Proposals and guidelines for proposals are available at <https://events.massey.ac.nz/pme-47-conference/>.

For the peer review process, authors must submit a second, blinded version of their proposal. Papers that do not conform to the formatting guidelines, exceed the maximum number of pages, or which are not accompanied by a properly blinded version may be rejected without further consideration or peer review.

For details, please refer also to the Submission Checklist provided by IGPME at <http://www.igpme.org/annual-conference/session-types/research-report/submission-checklist-rr/>.

Because of length restrictions, papers should be concise, but should nevertheless contain all information necessary to inform both reviewers and other researchers. Proposals merely stating that results will be presented at the conference cannot be accepted. Authors are requested to refer to related papers that have been presented at previous PME conferences.

Please consider the following issues before you submit your proposal:

Proposals for Research Reports must be submitted via ConfTool (www.conftool.com/pme47) by the presenting author no later than January 15, 2024. Submissions to ConfTool are only possible if the presenting author is registered in the ConfTool system and has paid the non-refundable conference deposit.

Two files must be submitted for each proposal:

- for publication, a word file that strictly follows the formatting guidelines
- for review, a “blinded version” as a PDF file in which it is not possible for a reviewer to infer the authors’ identities from the text, including the references.

Please note that no revisions are possible after submission. Each contribution is accepted or rejected in the form in which it was submitted. Every pre-registered

person may submit up to one Research Report. The proposal should be submitted by the author who will deliver the presentation during the conference. Each conference participant may present at most one Oral Communication or one Research Report, including the Research Reports that are part of Colloquia (please refer also to section 5.2.1 for Restrictions on number of contributions).

Reviewing procedure and criteria

The submitted proposals for the Research Reports are double-blind peer-reviewed by three PME members whose areas of expertise match the research categories chosen for the contribution. The International Program Committee (IPC) decides on the acceptance of proposals. Details of the review process are available at the IGPME webpage <http://igpme.org/index.php/annual-conference/session-types/research-report/>.

Notification of the decision of the International Program Committee will be available after the second meeting of the International Program Committee in April. The proposal can be accepted or rejected, or the author is invited to resubmit the contribution in the form of an Oral Communication or Poster Presentation.

Publication and presentation

Accepted papers will be included in the proceedings only if the full conference registration fee has been paid in time. The deadline for this payment is May 17, 2024. Details are published in the Second Announcement.

Each Research Report presentation will be allotted a total time of 40 minutes: 20 minutes for the oral presentation and 20 minutes for questions and comments.

A chairperson will be assigned to each Research Report session. They will introduce the presenters, make a comment regarding photographing, audio- and videotaping the session, monitor timing of the session, and moderate the discussion.

5.2.3. Colloquium (CO)

The goal of a Colloquium is to provide the opportunity to present a set of three Research Reports that are interrelated in a particular way (e.g. they are connected through related or contrasting theoretical stances, use identical instruments or methods, or focus on closely related research questions), and to initiate a discussion with the audience on the interrelated set.

A Colloquium proposal:

- consists of a set of exactly three research reports, to be presented by members from at least two different countries;
- includes, in addition, a one-page summary by an organizer (one person), indicating a specific pre-determined focus that is common to each research report; and
- involves a presentation of the three research reports, and a discussion with the audience that is initiated by the contribution of a discussant (one person, indicated in the author line of the one-page summary) who is appointed at submission.

The three Research Reports should be formatted and submitted via ConfTool using the guidelines provided for that presentation format (see above, 5.2.2 Research Report (RR)). Here, further information is provided only for the one-page summary which accompanies the three Research Reports.

The additional one-page summary is created using the same template or formatting guidelines as for Poster Presentations and Oral Communications, and is submitted by the Colloquium organizer via ConfTool. It provides the Colloquium title and the name of the organizer (preceded by "Organizer:") and discussant (preceded by: "Discussant:") in the author fields. Then, the text containing the focus and/or rationale for the Colloquium is provided. Note that no abstract is necessary for the Colloquium summary. Proposals that do not follow the formatting guidelines will not be included in the peer review process.

In the comments field in ConfTool, the authors and titles of the three research reports that comprise the Colloquium must be indicated.

Submissions to ConfTool are only allowed if the presenting author is registered in the ConfTool system and has paid the non-refundable conference deposit. Every pre-registered person may submit up to one Colloquium as organizer.

A Research Report in a Colloquium is counted identically to an individual Research Report for the existing restrictions on the number of contributions for a participant. Therefore, each conference participant may present at most one Oral Communication or one Research Report, including the Research Reports that are part of Colloquia (please see also section 5.2.1 for Restrictions on number of contributions). Note that acting as a discussant of a Colloquium will not count as a contribution for the existing restrictions on conference contributions. Nevertheless, each participant can take the role of organizer or discussant in a

Colloquium no more than once during one conference. Also, the organizer cannot be involved as (co-)author in more than one of the research reports in the Colloquium.

Submission and review process

Proposals for Colloquium presentations must be submitted no later than January 15, 2024 (also the deadline for Research Report proposals). The Research Reports that comprise a Colloquium proposal are reviewed in the usual way, using the same criteria. The IPC may, however, assign the set of three research reports to the same reviewers, who are then informed that the Research Reports are part of a Colloquium proposal. If all three Research Reports are considered acceptable during the review process, the International Program Committee reviews the Colloquium proposal during the second meeting of the International Program Committee and decides upon its acceptance. If not all the three Research Reports are accepted or if the framing proposal to group them in a Colloquium is rejected by the IPC, those Research Reports that were accepted in the usual review process will enter the conference program as usual Research Reports. In case of rejection, encouragement for resubmission in a different format is possible for the single Research Reports.

Details of the review process are available at the IGPMME webpage: <http://igpme.org/index.php/annual-conference/session-types/colloquium/>.

Presentation

A 90-minute timeslot will be devoted to each Colloquium. The organizer takes care of the chairing. The organizer first briefly introduces the Colloquium topic and then each Research Report is presented in turn. The presentation time for each report can be agreed with the organizer beforehand but will be between 15 and 20 minutes (depending on how much the papers have in common; some presentations can be shorter). Afterwards, the discussant initiates the discussion for approximately 10 minutes, which is followed by discussion with the audience.

5.2.4. Oral Communication (OC)

An Oral Communication proposal should describe which past research the study is built on; give a concise overview of the new results attained, and what the main implications of these results are.

Contributions need not be limited to completed research. Ongoing studies may be submitted, provided that theoretical framework, preliminary results, and a discussion of these results appear in the text submitted. Proposals which are too similar to papers previously presented cannot be accepted. Proposals that represent new and significant contributions to research in the Psychology of Mathematics Education are especially encouraged.

Submission procedure and restrictions

Proposals for Oral Communications are to be written in English without an abstract. The document may be up to one page long and must be in line with the formatting guidelines provided by the conference organizers. The PME 47 template for Oral Communications Proposals and guidelines for proposals are available at <https://events.massey.ac.nz/pme-47-conference/>. For the peer review process, authors must submit a second, blinded version of their proposal. Papers that do not conform to the formatting guidelines, exceed the maximum number of pages or which are not accompanied by a properly blinded version may be rejected without further consideration or peer review.

For details, please refer to the Submission Checklist provided by IGPME at <http://www.igpme.org/annual-conference/session-types/oral-communication/submission-checklist-oc-and-pp/>.

The preparation of a proposal for an Oral Communication is a challenging enterprise since the length is limited to one page only. Note that no abstract is necessary for an Oral Communication paper.

Please consider the following issues before you submit your proposal:

Proposals for Oral Communication must be submitted via ConfTool (www.conftool.com/pme47) no later than March 1, 2024. Submissions to ConfTool are only possible if the presenting author is registered in the ConfTool system and has paid the non-refundable conference deposit. Two files must be submitted for each proposal:

- for publication, the word file that strictly follows the formatting guidelines
- for review, a “blinded version” as a PDF file in which it is not possible for a reviewer to infer the authors’ identities from the text, including the references.

Please note that no revisions are possible after submission. Each contribution is accepted or rejected in the form in which it was submitted. Every pre-registered person may submit up to one Oral Communication (please refer also to section 5.2.1 for Restrictions on number of contributions). The proposal should be submitted by the author who will deliver the presentation during the conference.

Reviewing procedure and criteria

Proposals for Oral Communications will be double-blind peer-reviewed by at least one member of the IPC (International Program committee). Notification of the decision of the International Program committee to accept or reject the Oral Communication proposal will be available after the second meeting of the International Program Committee in April 2024.

Details of the review process are available at the IGPME webpage: <http://igpme.org/index.php/annual-conference/session-types/oral-communication>.

Advice for authors on how to prepare an Oral Communication paper can be found on the PME website www.igpme.org/index.php/annual-conference/further-information/preparing-oc-and-pp.

Publication and presentation

Accepted papers will be included in the proceedings only if the full conference registration fee has been paid in time. The deadline for this payment is May 17, 2024. Details are published in the Second Announcement.

The IPC will group three Oral Communications according to the distinctive themes in order to provide the opportunity for a common discussion period at the end of each OC session.

For OC sessions, the IC recommends one of two timing options. Some sessions may contain presentations that are closely related, while for other sessions, this may be less the case. Based on the chair's reading of the OC summaries, and after consultation of the three presenters before the start of the session, he/she can select the appropriate option.

Option 1: Joint discussion at the end for presentations with related themes. After each presentation, there is the opportunity to clarify immediate questions for at most 5 minutes. 15 additional minutes of discussion are at the end of the session.

Option 2: Separate discussions for presentations with separate themes. The chairperson starts 10 minutes of questions and discussion directly after each 10-minute presentation.

A chairperson will be assigned to each Oral Communication session. They will introduce the presenters, make a comment regarding photographing, audio- and videotaping the session, monitor timing of the session, and moderate the discussion according to one of the previously mentioned options.

5.2.5. Poster Presentation (PP)

Poster Presentations are intended for research that is best communicated in a visual form rather than an oral presentation. There is no formal oral presentation associated with Poster Presentations, although there is time allotted during which presenters will be available by their posters for discussion with conference participants.

Reports should describe the research context of the study presented, the study itself, and its implications, with a particular focus on the visual aspects of the presentation.

Contributions need not be limited to completed research. Ongoing studies may be submitted, provided that theoretical framework, preliminary results, and a discussion of these results appear in the text submitted. Proposals which are too similar to papers previously presented cannot be accepted. Proposals that represent new and significant contributions to research in the Psychology of Mathematics Education are especially encouraged.

Submission procedure and restrictions

Proposals for Poster Presentations are to be written in English. The document may be up to one page long and must be in line with the formatting guidelines provided by the conference organizers. The PME 47 template for Poster Presentation Proposals and guidelines for proposals are available at <https://events.massey.ac.nz/pme-47-conference/>. For the peer review process, authors must submit a second, blinded version of their proposal.

For details, please refer also to the Submission Checklist provided by IGPME at <http://www.igpme.org/annual-conference/session-types/oral-communication/submission-checklist-oc-and-pp/>.

Papers that do not conform to the formatting guidelines, exceed the maximum number of pages or which are not accompanied by a properly blinded version may be rejected without further consideration or peer review.

The preparation of a proposal for a Poster Presentation is a challenging enterprise since the space is limited to one page only. Note that no abstract is necessary for a Poster Presentation. Advice on how to prepare a Poster paper can be found on the PME website at <http://igpme.org/index.php/annual-conference/further-information/preparing-oc-and-pp>.

Please consider the following issues before you submit your proposal:

Proposals for Poster Presentations must be submitted via ConfTool (www.conftool.com/pme47) no later than March 1, 2024. Submissions to ConfTool are only possible if the presenting author is registered in the ConfTool system and has paid the non-refundable conference deposit. Two files must be submitted for each proposal:

- for publication, the word file that strictly follows the formatting guidelines
- for review, a “blinded version” as a PDF file in which it is not possible for a reviewer to infer the authors’ identities from the text, including the references.

Please note that no revisions are possible after submission. Each contribution is accepted or rejected in the form in which it was submitted.

Every pre-registered person may submit up to one Poster Presentation (please refer also to section 5.2.1 for Restrictions on number of contributions). The proposal should be submitted by the author who will deliver the presentation during the conference.

Reviewing procedure and criteria

Proposals for Poster Presentations will be reviewed by at least one member of the IPC (International Program Committee). Notification of the decision of the International Program Committee to accept or reject the Poster Presentation proposal will be available after the second meeting of the International Program Committee in April 2024.

Details of the review process are available at the IGPME webpage <http://igpme.org/index.php/annual-conference/session-types/poster-presentation/>.

Publication and presentation

Accepted proposals will be included in the proceedings only if the full conference registration fee has been paid in time. The deadline for this payment is May 17, 2024. Details are published in the Second Announcement.

60 minutes will be allocated to Poster Presentation sessions during the conference. Authors should be available at their poster in this session for discussion with conference participants. The authors should bring their posters printed in the format prescribed by the conference organizers in the Second Announcement.

Posters will be fully onsite. Nevertheless, all posters will be included as one-page pdf in the platform and an asynchronous chat will be available during the whole conference to communicate and discuss ideas with authors.

5.3. Group Activities

Group activities are intended to provide attendees with the opportunity to exchange information and ideas related to the PME. Conference participants will need to select which sessions they would prefer to attend and indicate this in their registration. Group activities will take place during parallel time allotments, and will have limited space.

All group activities (except RF proposals) are submitted for review through ConfTool, the online conference registration system (www.conftool.com/pme47). ConfTool is configured to only accept submissions from presenters who are registered in the ConfTool system and have paid the non-refundable conference deposit. Please refer also to section 5.2.1 for Restrictions on number of contributions.

5.3.1. Research Forum (RF)

A Research Forum is a format of group presentation undertaken by a group of at least five researchers. The goal of a Research Forum is to provide PME members a comprehensive overview on the state of the art on a topic where substantial research has been undertaken in the last 5-10 years and that is of ongoing interest for the PME members. The researchers are expected to be experts with respect to the research topic and offer coherently structured activities during 2 slots of 90 minutes each, as well as a comprehensive contribution (30 pages) to the

conference proceedings. See also <http://www.igpme.org/index.php/annual-conference/session-types/research-forum>.

A Research Forum is not supposed to be a collection of individual research presentations (see Colloquium format), but instead is meant to convey an overview of research, highlighting contemporary academic debates and perspectives in the field. In contrast to the Working Group format for evolving research topics, Research Forums are considered to mark significant advances with respect to established research topics.

A Research Forum:

- focuses on a topic which is of substantial interest within the work of PME;
- has a coherent structure that enables to attain a comprehensive overview of the topic;
- contrasts and integrates different research approaches through the consideration of multiple perspectives;
- includes structural opportunities for academic debate in interaction with the audience;
- provides the participants with the opportunity to prepare for the participation through the provision of reading materials prior to the activity;
- is developed by at least five researchers who are experts with respect to the research topic;
- covers 2 slots of 90 minutes each; and
- is represented in a comprehensive and coherent 30-page contribution in the conference proceedings.

Submission and Reviewing Process

Research Forums are highest-quality contributions to PME conferences and, as such, they are subject to a review process. In order to allow the researchers to adequately prepare the Research Forum, the deadline for proposals is December 1 in the year preceding the conference. A proposal should not exceed 5 pages, including references.

The International Program Committee (IPC) pre-reviews the proposals. If necessary, the IPC provides feedback to the coordinators with the opportunity to revise the proposal until January 15. During the First IPC meeting (late January),

the IPC decides on the acceptance of the Research Forums. If accepted, the final contribution for the conference proceedings (30 pages) must be handed in by March 8.

Proposals must include:

- the topic, title, and focus of the Research Forum;
- the names of all researchers contributing as presenting authors (minimum of 5);
- the name of the coordinator(s) (corresponding researcher);
- an outline of the theoretical background of the research topic;
- a detailed description of the proposed layout of the Research Forum, including thematic structuring, time structuring for 2 slots of 90 minutes each, as well as descriptions of the planned presentations and audience interactions;
- prior reading suggestions for attendants and details on accessibility (if needed, organizers may use the PME communication infrastructure at <http://www.igpme.org/>); and
- information on the planned structure of the contribution in the conference proceedings.

Presentation and Proceedings

Two 90-minute slots will be devoted to each Research Forum. The conference chairs are asked to schedule the slots subsequent whenever possible, although this cannot be guaranteed.

Please note the following requirements related to the presentation format at the conference:

- The coordinator(s) as well as all the persons listed as presenting authors of a Research Forum need to be registered conference participants and need to participate to the research forum in person.
- If a coordinator or a presenting author of a Research Forum has to cancel last minute – for whatever reasons – their presentation needs to either be presented locally by (i) co-authors of the Research Forum , (ii) co-authors of the presented research that are registered participants of the conference, or (iii) cancelled. That is, for coordinators and presenting authors of a Research Forum there is no option for digital participation.
- If the coordinators of the Research Forum plan to include additional persons digitally in the Research Forum, which are not listed as co-authors

of Research Forum, this can be done either in a hybrid mode or via a pre-recorded video under the following conditions:

- The digital participation is less than five minutes per person (i.e., a person giving a short reaction or input).
- The digital participation is announced up front in the submission of the research forum together with an indication why physical attendance is not possible and why no other (physically present) person could take this part.
- If a hybrid participation is planned, a prerecorded video is necessary as a backup in case of technical issues.

The decision regarding digital participation will be made by the IPC.

The proposal and conference proceeding contribution should follow the PME formatting guidelines. The final contribution for the conference proceedings should not exceed 30 pages including references. For accepted papers to be included in the proceedings, all coordinators and presenting authors to the Research Forum have to make a full registration by May 17 2024, at the latest.

5.3.2. Working Group (WG)

A Working Group is a format of group presentation undertaken by a group of at least two researchers. The aim of a Working Group is that PME participants are offered the opportunity to engage in exchange or to collaborate in respect to a common research topic (e.g., start a joint research activity, share research experiences, continue or engage in academic discourse). See also <http://www.igpme.org/index.php/annual-conference/session-types/working-group>.

A Working Group may deal with emerging topics (in the sense of newly developing) as well as topics that are not new but possibly subject to changes.

A Working Group needs a clear goal (outcome) and a strategy to reach this goal in collaboration with the participants. It must provide opportunities for contributions of the participants that are aligned with the goal (e.g. share materials, work collaboratively on texts, discuss well-specified questions).

A Working Group is not supposed to be a collection of individual research presentations (see Colloquium format), but instead is meant to build a coherent opportunity to work on a common research topic. In contrast to the Research Forum format that is meant to present the state of the art of established research

topics, Working Groups are considered to involve fields where research topics are evolving.

A Working Group:

- focuses on a research topic of substantial interest within the PME community;
- has a clear goal and a strategy to reach this goal in collaboration with the participants;
- includes structural opportunities for contributions by the participants to reach the goal;
- involves only a minimum of planned presentations to stimulate the specific collaboration or exchange;
- is provided by at least two researchers who are actively working within the research topic;
- covers 2 slots of 90 minutes each;
- is represented via the 2-page proposal in the conference proceedings; and
- will be portrayed in respect to its outcomes, after the conference, in a report to be included in the following PME newsletter.

Submission and Reviewing Process

Working Groups are subject to review in order to ensure the fit to the goals of PME as an organization. The deadline for proposals (2 pages) is March 1st via ConfTool. The International Program Committee (IPC) reviews the proposals for Working Groups and decides on their acceptance during the Second IPC meeting (April).

Proposals must include:

- the topic, title, goal, and strategy to reach the goal of the Working Group;
- the names of all researchers contributing (minimum of 2);
- the name of the coordinator (corresponding researcher);
- an outline of the theoretical background of the research topic;
- an explicit statement on the way the participants are expected to engage in collaboration and/or exchange in the Working Group;
- an explicit statement if the Working Group is a new initiative or a follow up on previous PME activities, as well as an indication of tentative follow up activities at future PME conferences (further WGs, RRs, Colloquium, etc.);

- a detailed description of the proposed layout of the Working Group, including
 - thematic structuring, time structuring for 2 slots of 90 minutes each, as well as descriptions of planned presentations and participants' exchange/collaboration activities;
 - opportunities to contribute by participants and details on the organizational process (if needed, organizers may use the PME communication infrastructure at <http://www.igpme.org/> for collaboration).

Presentation and Proceedings

Two 90-minute slots will be devoted to each Working Group. The conference chairs are asked to schedule the slots subsequent whenever possible, although this cannot be guaranteed. All Working Groups will take place on site during the conference.

The proposals should follow the PME formatting guidelines. The total length for the proposal is 2 pages including references. If accepted, this proposal will be included in the conference proceedings. For accepted papers to be included in the proceedings, all researchers contributing to the Working Group have to make a full registration May 17, at the latest.

After presentation, each Working Group is required to send a report of its activities and the goals reached to the PME Administrative Manager (info@igpme.org) by September 2024. This report may be included in the following PME Newsletter.

5.3.3. Seminars (SE)

The goal of a Seminar is the professional development of PME participants, especially new researchers and/or first comers, in different topics related to scientific PME activities. This encompasses, for example, aspects like research methods, academic writing or reviewing. A Seminar is not intended to be only a presentation but should involve the participants actively. PME can give a certificate of attendance to participants of the Seminar. Facilitating a seminar will not count as a contribution for the existing restrictions on conference contributions.

Submission and review process

A SE application must include:

- name of a coordinator;
- information about the topic and the goals of the SE as well as descriptions of specific tasks or activities to be carried out in the sessions; and
- a short outline about the goals and/or activities planned for each of the two 90 minutes' sessions.

Two-page proposals for a SE must be submitted not later than March 1, 2024 via ConfTool. The International Program Committee reviews and selects SEs during the second IPC meeting. Notification of the decision of the IPC to accept or reject a proposal for SE will be communicated in April 2024.

Presentation and Proceedings

The two-page proposals of accepted Seminars will be included in the Conference Proceedings. Two 90-minute sessions will be allocated to Seminars. After presentation, the coordinators of each SE are required to send a report of its activities to the PME Administrative Manager (e-mail address: info@igpme.org). This report may be included in the PME newsletter. This report is due by the end of September 2024.

5.3.4. Ad Hoc Meeting (AH)

Ad Hoc Meetings are a form of conference activity approved in 2010. During the conference, PME provides time slots and rooms for meetings of 'ad hoc' groups. The idea is that researchers can meet and discuss research topics that spontaneously came up during discussions of previous presentations at the conference. The Ad Hoc Meetings are reserved only for discussions; presentations or a continuation of a Research Report or Oral Communication are not allowed. To organize an Ad Hoc Meeting, at least two people should prepare an announcement with a short and precise description of the topic, the names of the organizers, and the preferred time slot, and deliver it to the PME Administrative Manager (info@igpme.org). The Administrative Manager will then assign times and rooms. Since there are only a few time slots and rooms, proposals will be accepted on a first-come, first-served basis.

5.3.5. National Presentation (NP)

The country hosting a PME conference can include a National Presentation in the scientific program of the PME conference. The goal of a National Presentation is to present to PME members of other countries the specific history, traditions and perspectives, as well as the most important results, of a national mathematics education community. Accordingly, the National Presentation has to be organized as a combination of giving information about the national situation and relating/contrasting this information with international mathematics educational research. One 90-minute session will be allocated to the National Presentation.

5.4. *Early Researchers' Day (ERD)*

PME is pleased to offer a special day (early researchers' day, ERD) for early career researchers who are also attending the PME conference. The Early Researchers' Day will directly precede the main PME conference and will consist of presentations, working groups and other kinds of sessions planned to be of value to those new to research in mathematics education.

The aim of the ERD is to provide early career researchers with opportunities to develop their research skills in various fields, establish new contacts, build networks among themselves and with respect to future PME conferences, and meet and work with international experts in the field.

The 2024 ERD will be held on the afternoon of Tuesday July 16 and the morning of Wednesday July 17 at Massey University (on site). The day is being organized by Tanya Evans (LOC member, New Zealand) and Arindam Bose (PME representative, India). Registration fees for ERD and coffee breaks are complimentary (no cost) and researchers can apply for participation through ConfTool. The number of participants will be limited. Priority will be given to current PhD students and post-doctoral students, and special consideration will be given to applicants from underrepresented countries. Updated and more detailed information will be posted on the conference website: <https://events.massey.ac.nz/pme-47-conference/>.

6. PME Pre-Submission Support

The PME pre-submission support for Research Reports and Oral Communications is intended for novice or inexperienced researchers who have limited access to expert advice and who would like to receive guidance from more experienced PME researchers. Applicants should submit their paper to the coordinator who is appointed by the International Committee. The coordinator will then assign the paper to an appropriate mentor and ensure that the communication between the mentor and novice researcher proceeds smoothly.

6.1. Coordinator

The PME pre-submission support coordinator is Alf Coles (United Kingdom), Alf.Coles@bristol.ac.uk

6.2. Procedure

Authors who wish to have a mentor to compose a Research Report or Oral Communication should contact the coordinator as early as possible, but no later than November 1, 2023. The pre-submission support papers should be accompanied by a statement in which the authors describe:

- a. their limited experience in writing research reports (or journal articles) and
- b. their limited access to expert advice.

Mentors will correspond with the applicants and help strengthen their submitted papers. Please note that this procedure is meant to provide feedback on written reports. It is not meant as support for conducting research. This mentoring does not guarantee acceptance, as all submitted papers will still undergo the regular PME reviewing procedures.

7. Registration and Payment

7.1. Conference Pre-Registration

Pre-registration for PME 47 begins in November 2023. It will be carried out online using the ConfTool conference registration system, at www.conftool.com/pme47. Before registering for the conference or paying the membership fee, you need to register in the PME ConfTool system.

1. If you already have been a user of the PME ConfTool system, for example if you attended one of the last conferences:

- Please enter your username and password to log in and select the option “Pre-Register for this Event or Join PME as a member.” If you have forgotten your password, ConfTool will help you to retrieve it.

If you are a new user for the PME ConfTool system:

- Please create a new account and register in the system.
- You will need to provide your personal information and account information in order to build your own data base in the system.
- After filling in these details and submitting all information needed, you will be able to continue with your conference pre-registration.

2. Select your status as PME participant by clicking on the appropriate option. Step by step, the system will take you to the payment form for the conference deposit (see section 7.4).

If you have any problems with your conference pre-registration, please contact at: pme47@massey.ac.nz

7.2. IGPME Membership Only

If you have been an IGPME member in the past, but will not be attending PME47, or you want to become a new IGPME member who will not attend PME47, pay the annual membership fee for PME through ConfTool. This is necessary for maintaining or getting membership.

1. As a member of IGPME who wants to renew membership:
 - Please log in by entering your username and password and select the option “Pre- Register for this Event or Join PME as a member.”

As a new member of IGPME:

- Please create a new account and register in the system.
 - You will need to provide your personal information and account information in order to build your own data base in the system.
 - After filling in these details and submitting all information needed, you are able to select the option “Pre-Register for this Event or Join PME as a member.”
2. After checking your personal details and choosing “Pay PME membership fee ONLY” in the following step, the system will automatically take you to the payment form for the membership fee (see section 7.4).

If you have any problems with payment of the membership fee, please contact at: pme47@massey.ac.nz

7.3. Registration Fees

The upper limit for the total registration fee will be around \$900 (NZD), according to PME regulations. The exact amount depends on the number of participants and external financial support. The exact amount will be decided by the International Program Committee in April 2024, just prior to the publication of the Second Announcement.

7.3.1. Conference Deposit

The non-refundable conference deposit is \$165 (NZD). For those who attend the conference, the conference deposit will be deducted from the total conference registration fee.

The conference deposit covers:

- PME memberships for the year 2024 of €50;
- a compulsory Skemp Fund donation of €10;
- access to electronic conference proceedings; and
- administrative cost related to the handling of the proposals.

7.3.2. Total Registration Fee

The total registration fee covers:

- PME membership for the year 2024 of €50;
- a compulsory Skemp Fund donation of €10;
- a set of printed proceedings (see below) and access to an electronic version of the proceedings;
- 3 lunches and 7 coffee breaks;
- opening reception;
- conference dinner and;
- the costs of venue, administrative work, and facilities needed for the organization of the conference.

You have the option to choose if you want to receive printed proceedings or not. During the final registration process via the ConfTool system, participants can choose the alternative option that includes only electronic proceedings. If you choose only electronic proceedings, the registration fee will be reduced.

The reduction depends on the price of printed proceedings (i.e., on the number of pages and volumes) and will be announced on the conference website and in the Second Announcement in April 2024.

7.3.3. Accompanying Person Fee

We welcome accompanying people. Accompanying people participate in the social program but not in the scientific program of the conference. The fee for accompanying people is expected to be around \$280 (NZD) per person depending on the anticipated number of participants. The exact amount will be decided by the International Program Committee in April 2024, just prior to the publication of the Second Announcement.

The fee covers:

- opening reception;
- conference dinner; and
- some of the administrative work involved outside of the scientific program.

If you have any questions, please contact at: pme47@massey.ac.nz

7.3.4. Late Registration Fees

An additional charge of \$130 (NZD) will be applied for registrations made after May 17, 2024.

7.4. *Payment Options*

All participants should do their payment by credit card payment or bank transfer. After confirming your pre-registration, you will find the information to make the credit card payment or information about the bank account details to make the payment. In the case of a bank transfer you should provide the following: PME47-Surname, Name.

After the payment, you must send a copy of the bank transfer receipt to the email address: pme47@massey.ac.nz to complete the payment process.

7.5. *Donations to Skemp Fund*

The Richard Skemp Memorial Support Fund is a fund that was established to support academics from under-represented or economically weak countries in attending the annual conference (see section 7.6). The spirit of the fund is to help

academics who normally would not have access to the PME conference. As such, where applicants are from, where they are living, where they are working, where they are currently studying, as well as the conditions of their employment and studies are important factors when adjudicating the applications.

The Skemp Fund plays an increasingly important role in making the PME annual conference more accessible to mathematics educators who would not otherwise be able to attend the conference. The extent to which we can give this financial assistance depends to a large degree on the generosity of the PME community. For this reason, a compulsory donation of €10 is included in the pre-registration fee for the conference. In addition, the International Committee calls on members to make an additional donation, however small, to the Skemp Fund when paying membership fees or registering for annual conferences.

7.6. Richard Skemp Memorial Support Fund

The Richard Skemp Memorial Support Fund is a fund that was established to support academics from under-represented or economically weak countries in attending the annual conference. The spirit of the fund is to help academics who normally would not have access to the PME conference.

A limited amount of financial support is available to researchers who experience difficulty in obtaining financial support to attend a PME conference. Applicants for a grant from the Fund must submit an individual contribution (RR, OC, PP) and pay the non-refundable conference deposit, prior to the applicant's proposal being reviewed. A grantee must have at least one proposal (RR, OC, PP) accepted.

In general:

- only one of the authors of a particular proposal will be eligible to apply for a grant;
- those who have already received a grant on two prior occasions will not receive an additional grant; and
- for applicants who have already received a grant in a previous year, priority will go to those who have an accepted Research Report rather than an Oral Communication or Poster Presentation.

The number and size of grants each year depends on the amount available as well as the number of applicants and the relative merits of each application. The Richard Skemp Memorial Support Fund Committee will meet during the second

International Program Committee meeting, in April 2024, and will make its recommendations once decisions on the acceptance or rejection of proposals have been completed. The PME Administration Manager will contact applicants to inform them of the decision on their application for a Richard Skemp Memorial Support Fund grant. This will usually take place before the end of April each year. Please note that grants cannot be carried over to the next year's conference. Grants will be paid at the conference and are not available in advance.

Applicants for a Skemp Fund grant should fill in the application form available from the conference website or from the PME website (<http://igpme.org/index.php/annual-conference/skemp-fund-support>).

The application should be submitted by March 1, 2024 using the form that will be available on the website. For assistance, you can address the IGPME Administrative manager:

Dr. Khemduth Singh Angateeah

Email: info@igpme.org

7.7. Cancellation Policy

7.7.1. For Registered Participants

Participation in the conference is conditional upon registration and payment of all fees. All cancellations and changes regarding the conference registration must be made in written form to the conference secretariat by sending an email to pme47@massey.ac.nz. In all cases, the conference deposit will not be refunded; however, the deposit will cover one year of membership as well as access to the electronic conference proceedings (see section 7.3.1 Conference Deposit).

If a cancellation for conference participation is made after the full registration fee has been paid: Before June 3, 2024, the refund will be the amount of the full registration fee minus the conference deposit and the fees that the bank charges for transferring the refund. Refund = (registration fee – conference deposit) – bank fees.

Cancellation after June 3, 2024 will be subject to the discretion of the Conference Chair on an individual basis.

7.7.2. For Accompanying People

If a cancellation for accompanying person is made after the full registration fee has been paid: Before June 3, 2024, the refund will be the amount paid minus the fees that the bank charges for transferring the refund will be refunded. Refund = accompanying person fee – bank fees.

7.7.3. General Information

Participation is not guaranteed until full payment of the registration fee is received.

The conference program may be subject to changes (based on decisions by the International Program Committee).

In the case of unforeseeable events, it is up to the International Program Committee and the International Committee of PME to decide on changes or even the cancellation of the conference and the amount of refund of payments. If the conference is cancelled, the remaining funds will be paid back to the participants and no further liability of the local organizers or PME will be accepted towards the client.

8. Deadlines for PME 47 (2024)

8.1. Scientific Program

For all accepted proposals, the deadline of final registration is May 17, 2024. Contributions will not be included into the proceedings, if final registration including the payment of the total registration fee is not completed by that date.

8.1.1. Personal Presentations

Research Report	Pre-Registration, Proposals and Payment of Conference Deposit	January 15, 2024
Colloquium	Pre-Registration, Proposals and Payment of Conference Deposit	January 15, 2024
Oral Communication	Pre-Registration, Proposals and Payment of Conference Deposit	March 1, 2024

Poster Presentation	Pre-Registration, Proposals and Payment of Conference Deposit	March 1, 2024
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8.1.2. Group Activities

Research Forum	Proposals	December 1, 2023
	Pre-Registration, revised Proposals and Payment of Conference Deposit	January 15, 2024
	Full Papers	March 8, 2024
Working Group	Pre-Registration, revised Proposals and Payment of Conference Deposit	March 1, 2024
Seminar	Pre-Registration, revised Proposals and Payment of Conference Deposit	March 1, 2024

8.2. Registration

Pre-registration	Necessary to submit proposals and for proposals to be reviewed	See above
Full registration	Necessary for inclusion of all types of papers in the PME proceedings	May 17, 2024
Late registration	Additional charge of €50	After May 17, 2024

8.3. Deadlines for PME 48 (2025) in Santiago, Chile

Research Forums for PME 48 to be held in Santiago, Chile should be submitted before November 1, 2024, to the Administrative Manager (info@igpme.org).

The deadline for PME Pre-Submission Support for contributions to PME 48 in Santiago, Chile is November 1, 2024. Please refer to

www.igpme.org/index.php/annual-conference/pre-submission-support/ for further information.

9. Travel Information

9.1. Getting to Auckland

You can only reach Auckland via plane or cruise ship internationally.

29 international airlines fly direct to Auckland from 44 destinations around the world.

Auckland is the most connected city in New Zealand, with regular flights to and from cities across the globe and daily flights to all the country's main centres and popular tourist destinations.

From the Airport into Auckland CBD

SkyDrive: Bus from Auckland Airport into the city:

SkyDrive offers a reliable and affordable express and direct shuttle service between both the Domestic and international Terminals at Auckland Airport and SkyCity in Central Auckland

The SkyDrive Airport Express service travels directly from downtown Auckland to Auckland Airport in comfort on coaches with panoramic views.

Adult: NZ\$18 One Way

Child: NZ\$8 One Way

<https://www.skydrive.co.nz/>

Catch a shuttle from Auckland Airport to the city

Approximately NZ\$35 for one person.

A shuttle is a cost-effective way to travel into the city and takes approximately one hour. Discounts apply if two or more people are travelling together - approximately NZ\$8 per additional person. Shuttles are normally shared with other passenger groups.

The shuttle's travelling time depends on traffic conditions and the number of drop-offs or pick-ups along the way. Allow plenty of time to reach the airport for departing flights.

<https://www.supershuttle.co.nz/>

Getting a taxi

Approximately NZ\$75 to NZ\$90 - about 30 minutes.

Taxi and shuttle ranks are located outside the arrivals area (door 8) at the international terminal and outside the Jetstar forecourt at the domestic terminal. The journey between the airport and the central city can take considerably longer during peak traffic periods.

If you're travelling to the airport by taxi, make sure you allow plenty of time. Taxis licensed to operate from the airport carry a value and service guarantee.

All taxis generally accept both cash and credit card.

Rideshares

Both the domestic and international terminals have a dedicated rideshare area. You can get picked up or dropped off with rideshare services such as Uber and Ola.

Car rental

Major rental car companies operate from both terminal buildings. Bookings are strongly recommended.

9.2. Getting to the Conference Venue

Once you are in Auckland CBD or on the North Shore, there are several ways to arrive at Massey University where the conference will take place:

9.2.1 By bus (to Albany Campus)

Auckland Transport buses run to the Auckland campus from many parts of the North Shore and stop in front of the Atrium Building in the East Precinct. This includes buses to Albany Station on the Northern Busway to Auckland city.

There are also frequent buses to Takapuna that depart a 3-minute walk from Massey University.

To use buses in Auckland you will need to purchase a HOP card. (This may change by July 2024)

<https://at.govt.nz/bus-train-ferry/at-hop-card/buy-at-hop-card>

9.2.2 By car

There are limited car parks at the campus - these are on a first come, first serve basis.

9.3. About New Zealand

9.3.1. Language

New Zealand has three official languages: English (de facto), Māori and New Zealand Sign Language.

9.3.2. Passport and visa

60 countries have visa waiver agreement with New Zealand.

Those who need an official invitation in order to obtain a visa to enter New Zealand, please read Section 9.3.3. Letter of Invitation.

PME 47 cannot be held responsible for any matters related to obtaining visas.

9.3.3. Letter of Invitation

Delegates requiring a letter of invitation in order to attend the conference may write to the conference secretariat at pme47@massey.ac.nz specifying the necessary details. Please note that this procedure aims explicitly at assisting delegates who need to obtain a visa or permission to attend the conference. It is not an official invitation covering fees or other expenses and does not imply any financial support from the conference organizers.

9.3.4. Currency

The currency in New Zealand is the New Zealand Dollar (NZD/\$)

9.3.5. Power Plugs

For New Zealand the associated plug type is I, which is the plug that has three flat pins in a triangular pattern. New Zealand operates on a 230V supply voltage and 50Hz. If your appliance's plug doesn't match the shape of these sockets, you will need a travel adapter in order to plug it in.

9.3.6. Telephone Codes and Useful Numbers

The New Zealand country code +64 will allow you to call New Zealand from another country. The code 64 is followed by an area code. The Auckland area code is 09 (+64 9xxxxxxx) There is no area code if you are calling a mobile phone (cell phone).

Where to call in case of emergency? Dial 111 for all emergency services.

9.3.7. Weather

July is winter in New Zealand, the temperature settles at its coolest point, an average 11°C (52°F). The average high temperature for the month is 14°C (57°F) and the average low temperature for the month is 8°C (46°F), with the overnight temperatures often being brisk and requiring a jacket. July also receives more precipitation than any other month.

9.3.8 Liability and Insurance

Please check the validity of your insurance before travelling to the conference. The Local Organizing Committee does not accept any liability for personal injury, loss or damage of personal belongings, or additional expenses incurred to congress participants (or their accompanying people) either during the conference or as a result of any other causes.

9.3.9 Accommodation

There are different accommodation options available for your visit to Auckland during the conference.

On the one hand, if you prefer to stay in Auckland CBD and enjoy your time visiting the city, most of their hotels are located very close to each other in the city centre, which makes it easy to meet up with colleagues and buses are available to transport you to the North Shore where the conference is held.

On the other hand, Massey University is close to several large hotel chains where accommodation can be found.

Information about accommodation will be available on the conference webpage:

<https://events.massey.ac.nz/pme-47-conference/>.