Delight in Mathematics Education

42nd Annual Meeting of the International Group for the Psychology of Mathematics Education (PME42)

July 3-8, 2018
Umeå, Sweden

www.pme42.se

Second Announcement
The Umeä River, Umeälven.

The Northern Light.

PME42

Umeå University Campus from above.

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1 Welcome

The Local Organizing Committee of the 42nd 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 Umeå, Sweden, from July 3 to July 8, 2018.

The theme of the conference is “Delight in Mathematics Education” and it refers to the joy, pleasure, and beauty in both mathematics and mathematics education. It includes issues on how both teaching and learning mathematics can be fun, meaningful, and inspiring, for teachers as well as for students. The theme also encompasses how mathematics and mathematics education can connect to individual students and teachers, for example, through aspects of motivation, creativity, and usefulness, and how individuals can see themselves as able in mathematics.

Our goal is to make the 2018 meeting scientifically and socially successful. We hope that your visit and stay in Umeå and Sweden will be exciting, informative, and inspiring. We look forward to welcoming you to the conference in July 2018.

1.1 Your Hosts

PME42 in 2018 is being hosted by Umeå University, Sweden. Umeå University (umu.se/english) was founded in 1965 and is Sweden’s fifth oldest university. Today, the university has a strong international presence with students, teachers and researchers from all over the world. The university has developed interaction between research, education, collaboration and innovation that challenges boundaries and plays a crucial role in the region’s development.

Umeå University Campus in summer.

Umeå Mathematics Education Research Centre (www.umerc.umu.se) is an interdisciplinary network of researchers and research students engaged in mathematics education. The network has about 30 participants and is one of the largest research groups in mathematics education in Scandinavia. UMERC focuses on applied research, aiming at supporting the development of learning, teaching, textbooks, tests, steering documents etc. The participants conduct research in many areas within mathe-
matics education, for example, formative assessment, reasoning, communication, special education, and beauty. UMERC creates a productive and inspiring environment for high quality research through seminar series, international guests, and cooperation with school teachers at all levels, local municipalities, the Swedish National Centre for Mathematics Education, the Swedish National Agency for Education, and the international research society.

1.2 About Umeå

Welcome to Umeå, Sweden’s most dynamic and alluring convention city, and the city of birches, which is visible in the conference logo. Umeå is located approximately 600 kilometres north of the Swedish capital, Stockholm, and has around 120,000 inhabitants. Umeå has all the charm of a small town with all the comforts and conveniences of a big city. Compactness is one of Umeå’s many strong points, and the closeness creates excellent conditions for successful and effective meetings. Umeå is a safe, secure and environmentally friendly city that has several times been named Sweden’s best city to live, work and convene in.

The light in the conference theme also alludes to the truly magical summertime in the north of Sweden. The lovely bright summer nights, when the sun barely sets, and it is just as light in the late evening as it is in the middle of the day, make a truly spectacular experience that no visitor will ever forget.

Umeå from above.

More information about Umeå: www.visitumea.se/en/

1.3 About Sweden

Sweden is a Scandinavian nation with thousands of coastal islands and inland lakes, along with vast boreal forests and glaciated mountains. Its principal cities, eastern capital Stockholm and southwestern Gothenburg and Malmö, are all coastal. Stockholm is built on 14 islands.
Sweden is the third-largest country in the European Union by area, with a total population of 10.0 million. Sweden consequently has a low population density of 22 inhabitants per square kilometre (57/sq. mi), with the highest concentration in the southern half of the country. Approximately 85% of the population live in urban areas.

Sweden can offer everything from city to wilderness. The islands of the west coast, the archipelago of Stockholm, the border to the continent in Malmö, the medieval city of Visby, the wilderness of the north, the mountains of the west, the aurora borealis (northern lights), ABBA, Zlatan and IKEA.


1.4 About the Conference Venue at Umeå University

Over 34 000 students and 4 300 staff share a wonderful university campus. More than 15 large buildings surrounding the university lake are connected with walkways and sky-walks, creating a compact campus full of creativity. In the event of bad weather, it is possible to stay undercover when walking between all university buildings that will be used for the conference. There will be no students at all on campus during the conference, they will all be on summer leave, so participants of PME42 will have the whole campus as their own.

Most activities during the conference will take place in Aula Nordica and the Science building (see map below). Food and coffee, as well as the welcome reception, will be in Universum (i.e., the Universe). The plenaries and all general sessions will be in the large lecture hall Aula Nordica that can host over 1 000 people. Parallel session will mostly be in the Science building, but some Research forums or other larger sessions might also take place in the lecture halls in the Lindell building close to the University library (letter C on the map).

At the university campus there are many possibilities to sit down and work, alone or in smaller groups. There are several student areas in the Science building very suitable for this. There are also many walking paths and places to sit down outdoors, for example, around the university lake.

On the map on the next page you can find Universum, the Science building and Aula Nordica marked with arrows. You can also see the university lake.
1.5 Conference Dates

- Early Researchers Day (ERD) will take place on Monday, July 2 and Tuesday, July 3.
- The registration will be on Tuesday, July 3 between 2:00 PM and 4:00 PM in Universum.
- The opening session, including the first plenary presentation, the cultural event, and the opening reception, will begin on Tuesday, July 3 at 4:00 PM in Aula Nordica.
- The excursions are planned for Thursday, July 5, after lunch.
- The conference dinner will take place on Friday evening, July 6.
- The conference will end on Sunday, July 8, around 2:00 PM.

1.6 Dates for IGPME Activities

- The First Timers Meeting for colleagues attending a PME conference for the first time will take place on Tuesday, July 3 at 2:30-3:30 PM in Universum.
- The Policy Meeting gives space for an open discussion with the members of the International Committee. It will take place during lunch time on Thursday, July 5, in Hörsal A.
- The Annual General Meeting (AGM) will take place on Saturday afternoon, July 7, in Aula Nordica.
2 Committees of PME42 (2018)

2.1 The International Program Committee (IPC)

The International Program Committee of PME42 in Umeå consists of:

- Ewa Bergqvist LOC, co-chair Umeå University (Sweden)
- Magnus Österholm LOC, co-chair Umeå University (Sweden)
- Carina Granberg LOC Umeå University (Sweden)
- Lovisa Sumpter LOC/PME Stockholm University (Sweden)
- Peter Liljedahl PME Simon Fraser University (Canada)
- Laurinda Brown PME University of Bristol (United Kingdom)
- Stanislaw Schukajlow-Wasjutinski PME University of Münster (Germany)
- Hamsa Venkatakrishnan PME University of the Witwatersrand (South Africa)

2.2 The Local Organising Committee (LOC)

The Local Organizing Committee of PME42 in Umeå consists of:

Ewa Bergqvist, Tomas Bergqvist, Carina Granberg, Johan Lithner, Olof Johansson, Mathias Norqvist, Catarina Rudälv, Lotta Vingsle and Magnus Österholm, from Umeå University, Sweden, and Lovisa Sumpter from Stockholm University, Sweden.

In addition, Umeå Congress is the congress bureau involved in the organizing of PME42.

3 PME Conference Secretariat

3.1 Secretariat Email Addresses

For any questions regarding PME42, please contact Elisabet Norlin at the conference secretariat: elisabet@umea-congress.se.

3.2 Conference Website

The conference website is www.pme42.se where you can find up-to-date information on matters contained within this Second Announcement. See also the conference page on Facebook www.facebook.com/pme42/ 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 2018 is the 42nd annual meeting of the International Group for the Psychology of Mathematics Education (PME42).
4.1 The Constitution of IGPME

The constitution of PME was adopted at 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 and on July 21, 2012. The major goals of the group are:

- to promote international contact and exchange of scientific information in the field of mathematical education;
- to promote and stimulate interdisciplinary research in the aforesaid area; and
- to further a deeper and more correct understanding of the psychological and other aspects of teaching and learning mathematics and the implications thereof.

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 (retired).

4.3 International Committee of IGPME (IC)

Peter Liljedahl (President, Canada)
David M. Gomez (Vice-President, Chile)
Einat Heyd-Metzuyanim (Secretary, Israel)
Cris Edmonds-Wathen (Treasurer, Australia)
Richard Barwell (Canada)
Kim Beswick (Australia)
Laurinda Brown (United Kingdom)
Yiming Cao (China)
Man Ching (Australia)
Ester Chan (Hong Kong SAR)
Csaba Csikos (Hungary)
Mellony Graven (South Africa)
Berinderjeet Kaur (Singapore)
Maria Mellone (Italy)
Miguel Ribeiro (Brazil)
Stanislaw Schukajlow-Wasjutinski (Germany)
Lovisa Sumpter (Sweden)
Kai-Lin Yang (Taiwan)

4.4 IGPME Administrative Manager

Bettina Rösken-Winter
Humboldt Universität, Berlin
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D-10099 Berlin, Germany
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5 The Scientific Program

The theme of the 42nd PME conference is:

**Delight in Mathematics Education**

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)
- Colloquia (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 (see Section 5.4)**

**Early Researchers’ Day (see Section 5.5)**

5.1 Plenary Sessions

5.1.1 Plenary Lectures

There will be four plenary addresses from invited speakers, each lasting 60 minutes. The plenary lectures for PME42 are:

Kim Beswick, Professor at University of Tasmania, Australia.

*To be announced*

Markku Hannula, University of Helsinki, Finland.

*Affect in mathematical behaviour: From anxiety to engagement*

Mogens Niss, Roskilde University, Denmark.

*The very diverse nature of mathematics education research*

Natalie Sinclair, Simon Fraser University, Canada.

*An aesthetic turn in mathematics education*
5.1.2 Plenary Panel
The plenary panel will be held according to the Oxford-Style debate protocol regarding what needs to come first, positive feelings regarding mathematics or high performance. The panel for PME42 consists of the following researchers:

Márcia Pinto, Federal University of Rio de Janeiro, Brazil (chair).
Francesca Morselli, University of Genoa, Italy.
Wee Tiong Seah, The University of Melbourne, Australia.
Wim Van Dooren, KU Leuven, Belgium.
Qiaoping Zhang, The Education University of Hong Kong, Hong Kong SAR.

5.2 Personal Presentations
Notifications of decisions from the International Program Committee (IPC) to accept or reject proposals were made available by April 2018. The detailed reviews for Research Reports are made available in the ConfTool system at http://www.conftool.com/pme42 (on the author’s personal page).

In order for an accepted proposal to be presented at the conference and to appear in the proceedings, the presenting author must pay the full Conference fee no later than May 16, 2018. The conference deposit already paid by the presenting author for pre-registration is non-refundable and will be deducted from the full conference fee.

The International Committee (IC) prepared helpful presenting guidelines for personal presentations. These are available on the IGPME website, http://igpme.org/index.php/annual-conference/further-information/presentation-guidelines.

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 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. Further, you can be presenting author of a Poster Presentation, Research Forum, and Working Group in addition.

Restrictions on (co-)authorship:
Each conference participant may have his/her name on not more than four conference contributions in total. Additionally, each conference participant may act as organizer of at most one Colloquium.

5.2.2 Research Report (RR)
Research Reports are intended to deal with topics that relate to the main goals of PME. They should state what is new in the research, how it builds on past research, and/or how it has developed new directions and pathways. Some level of critique must exist in all papers.

The deadline for submission of RR proposals was January 15, 2018. The number of submitted RR proposals was 416, and 190 of them were accepted. Of those rejected as RR proposals, 163 were invited to be resubmitted as OC, and 55 as PP. Re-submitted OCs and PPs will undergo the same review process as the OC and PP submissions that were submitted directly. Decisions on OC and PP re-submissions will be provided no later than May 7, 2018. Accepted papers can be presented at the conference and
will be included in the proceedings only if the full conference registration fee has been paid by the presenting author no later than May 16, 2018.

Each RR presentation will be allotted a total of 40 minutes: 20 minutes for the oral presentation and 20 minutes for questions and comments. A chairperson will be assigned to each RR session. They will introduce the presenters, make a comment regarding photographing, audio recording and filming the session, monitor timing of the session, and moderate the discussion.

5.2.3 Colloquium (CO)

The goal of a Colloquium is to provide an opportunity to present a set of three papers that are interrelated (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.

The deadline for submission of Colloquium proposals was January 15, 2018. There were 4 proposals submitted for a colloquium, and 1 of them has been accepted, while 1 proposal might be accepted after the re-submission of a Research Report as an Oral Communication. Accepted COs can be presented at the conference and will be included in the proceedings only if the full conference registration fee has been paid by the all presenters, the organiser and the discussant of the colloquium no later than May 16, 2018.

A 90-minute time slot will be devoted to each Colloquium. The organizer takes care of the chairing. The organizer first briefly introduces the Colloquium topic and then each paper is presented in turn. The presentation time for each paper 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)

Oral Communications are intended to present smaller studies and research that is best communicated by means of a shorter oral presentation instead of a full Research Report. They 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.

The deadline for submission of OC proposals was March 1, 2018. The number of submitted OC proposals was 222, and 147 of them were accepted. Of those rejected as OC proposals, 66 were invited to be resubmitted as PP. Re-submitted PPs will undergo the same review process as PP submissions that were submitted directly. Decisions on PP re-submissions will be provided no later than May 7, 2018. Accepted OCs can be presented at the conference and will be included in the proceedings only if the full conference registration fee has been paid by the presenting author no later than May 16, 2018.

The IPC will group three OCs according to the distinctive themes in order to provide opportunities for a common discussion period at the end of each OC session. A chairperson will be assigned to each OC session. They will introduce the presenters, make a comment regarding photographing, audio recording and filming the session, monitor timing of the session, and moderate the discussion.

In OC sessions, 10 minutes are allowed for each presentation which include the time it takes for preparation. However, the remaining 30 minutes of discussion time can be organized in different ways. For OC sessions, the chairperson assigned will recommend one of the two timing options depending on whether the presentations are closely related or not. Decisions will be made based on the chairperson’s reading of the OC summaries, and after consultation with the three presenters before the start of the session. The two options are:
1. Joint discussion at the end for presentations with closely related themes: After each presentation, there will be opportunities to clarify immediate questions for at most 5 minutes. The remaining 15 minutes of discussion on the theme will take place at the end of the session.

2. Separate discussions for presentations with separate themes: The chairperson will moderate 10 minutes of questions and discussions directly after each 10-minute OC presentation.

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. Posters 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.

The deadline for submission of PP proposals was March 1, 2018. The number of submitted PP proposals was 88, and 66 of them were accepted. Accepted PPs can be presented at the conference and will be included in the proceedings only if the full conference registration fee has been paid by the presenting author no later than May 16, 2018.

A total of 60 minutes will be allocated to each Poster Presentation session during the conference. Note that the poster presentations run concurrently with coffee breaks. Authors should avail themselves at their poster during this session for discussion with conference participants.

Authors are expected to put up their posters at the start of the conference and leave them there for the duration of the conference. The maximum size limit of a poster is A0 (84 x 119 cm). Please use the portrait format for the poster.

5.3 Group Activities
Group activities are intended to provide attendees with the opportunity to exchange information and ideas related to 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.

Accepted proposals will be included in the conference program and in the conference proceedings only if the full conference fee for the coordinators is paid no later than May 16, 2018.

5.3.1 Research Forum (RF)
The goal of a Research Forum is to create dialogue and discussion by offering PME members more elaborate presentations, reactions, and discussions on topics on which substantial research has been undertaken in the last 5-10 years and which continue to hold the active interest of a large subgroup of PME. A Research Forum is not supposed to be a collection of presentations but instead is meant to convey an overview of an area of research and its main current questions, thus highlighting contemporary debates and perspectives in the field.

The deadline for submission of RF proposals was November 1, 2017. There were four submitted RF proposals, and all of them were accepted. However, one of the four was withdrawn, resulting in three Research Forums:

RF 1: OTHERNESS IN MATHEMATICS EDUCATION
Yasmine Abtahi, David Guillemette, Rune Herheim, Steve Lerman, Jean-Francois Maheux, Paola Valero

RF 2: LEARNING AND TEACHING OF ARITHMETIC SKILLS IN EARLY YEARS
Douglas Clements, Julie Sarama, Dina Tirosh, Pessia Tsamir, Esther Levenson, Ruthi Barkai, Hamsa
RF 3: VITAL SIGNS OF COLLECTIVE LIFE IN THE CLASSROOM
Lynn McGarvey, Jennifer Thom, Joyce Mgombe, Jerome Proulx, Elaine Simmt, Florence Glanfield, Lyndon Martin, Jo Towers, Brent Davis

Accepted RFs can be presented at the conference and will be included in the proceedings only if the full conference registration fee has been paid in time by all researchers contributing to the RF no later than May 16, 2018. Two 90-minute slots will be allocated to each Research Forum.

5.3.2 Working Group (WG)
The aim of 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). 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. It must provide opportunities for contributions of the participants that are aligned with a clear goal (e.g. share materials, work collaboratively on texts, and 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.

The deadline for submission of WG proposals was March 1, 2018. The number of submitted Working Group proposals was 14, and all of them were accepted:

WG 1: INTEGRATING MATHEMATICS IN STEM EDUCATION: AN INTERNATIONAL PERSPECTIVE
Judy Anne Anderson, Yeping Li

WG 2: TEACHER TENSIONS AS A LENS TO UNDERSTAND TEACHERS' RESISTANCE TO CHANGE
Chiara Andrà, Pietro Di Martino, Peter Liljedahl, Annette Rouleau

WG 3: INSTRUMENTS AND THE BODY
Paul Drijvers, Francesca Ferrara

WG 4: MATHEMATICS EDUCATION RESEARCH FROM AND IN LATIN AMERICA
Vanessa Franco Neto, Raimundo Elicer, Gustavo Bruno

WG 5: REPLICATION IN MATHEMATICS EDUCATION
Matthew Inglis, Stanislaw Schukajlow, Wim Van Dooren, Markku Hannula

WG 6: EXPLORING THE ROLE OF FACILITATORS IN VIDEO-BASED PROFESSIONAL DEVELOPMENT FOR MATHEMATICS TEACHERS
Ronnie Karsenty, Alf Coles

WG 7: INTERNATIONAL PERSPECTIVES: MEASURING MATHEMATICS TEACHERS' KNOWLEDGE IN THE DIGITAL ERA
Agida Manizade, Hege Kaarstein, Chandra Orrill, Guo Kan

WG 8: ASSESSMENT FOR LEARNING IN DIVERSE CLASSROOMS
Guri Nortvedt, Leonor Santos, Anna Teledahl
WG 9: MATHEMATICAL LEARNING DISABILITIES: A CHALLENGE FOR MATHEMATICS EDUCATION
Cecile Ouvrier-Buffet, Elisabetta Robotti, Thierry Dias, Marie-Line Gardes

WG 10: ARGUMENTATION AND FORMATIVE ASSESSMENT: A POSSIBLE SYNERGY?
Cristina Sabena, Annalisa Cusi, Francesca Morselli

WG 11: EYE-TRACKING IN MATHEMATICS EDUCATION RESEARCH: A FOLLOW-UP ON OPPORTUNITIES AND CHALLENGES
Maike Schindler, Eeva Haataja, Achim J. Lilienthal, Enrique Garcia Moreno-Esteva, Anna Shvarts

WG 12: CONSIDERING THE DESIRED TEACHER OF MATHEMATICS TEACHER EDUCATION
Kicki Skog, Iben Christiansen, Lisa Österling, Annica Andersson

WG 13: THE DESIGN OF INTENDED MATHEMATICS CURRICULA
Andreas J. Stylianides, William G. McCallum, Lynne McClure, Aisling Twohill, Geoff Wake

WG 14: MATHS AND SPECIAL EDUCATION WORKING GROUP
Helen Rachel Thouless, Kay Owens, Robyn Ruttenberg-Rozen, Ron Tzur, Yan Ping Xin

For accepted proposals to be included in the program and the proceedings, all researchers contributing to the Working Group have to make a full registration no later than May 16, 2018.

Two 90-minute slots will be allocated to each Working Group.

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 2018. This report may be included in the following PME Newsletter.

5.3.3 Seminar (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.

The deadline for submission of SE proposals was March 1, 2018. The number of submitted Seminar proposals was 2, and 1 of them has been accepted, while 1 proposal was invited to be re-submitted as either a Seminar or a Working Group.

SE 1: REVIEWING FOR PME - A PRIMER FOR (NEW) REVIEWERS
David Maximiliano Gomez, Anika Dreher

For accepted proposals to be included in the program and the proceedings, all researchers contributing to the Seminar have to make a full registration no later than May 16, 2018. Two 90-minute slots will be allocated to each Seminar.

After the conference, coordinators of each Seminar are required to send a report of its activities to the PME Administrative Manager (info@igpme.org) by September 2018. This report may be included in the PME newsletter.

5.3.4 Ad Hoc Meeting (AH)
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 persons 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. Note that it is not possible to organize an Ad Hoc Meeting before the conference.

5.4 National Presentation

The National Presentation will be organized and chaired by Peter Nyström and Ola Helenius from the Swedish National Centre for Mathematics Education, NCM (http://ncm.gu.se/node/203). They will give an overview of the history, traditions and perspectives of Swedish mathematics education. In addition, they will relate and contrast the Swedish situation with international mathematics education research.

5.5 Early Researchers’ Day

For the fifth time, 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 2018 ERD will be held on the afternoon of Monday July 2 and the morning of Tuesday July 3 at the campus of Umeå University. The day is being organized by Johan Lithner (LOC member, Sweden) and Anke Lindmeier (PME representative, Germany). Registration fees for ERD, coffee breaks, dinner on Monday and lunch on Tuesday are complimentary (no cost). Researchers can apply for participation at the same time as the full registration. As there are a limited number of places, 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: www.pme42.se.

6 Pre-Submission Support for PME43

PME43 will be held in Pretoria, South Africa, July 7 to 12, 2019. 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.

The PME pre-submission support coordinator is David Wagner (Canada), dwagner@unb.ca. 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, 2018.
The pre-submission support papers should be accompanied by a statement in which the authors describe:

- their limited experience in writing research reports (or journal articles) and
- 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. For more information, see [www.igpme.org/index.php/annual-conference/pre-submission-support](http://www.igpme.org/index.php/annual-conference/pre-submission-support).

7 Registration and Payment

7.1 Conference Registration

Registration for PME42 is carried out using the ConfTool Conference registration system, at [www.conftool.com/pme42](http://www.conftool.com/pme42). Before registering for the conference or paying the membership fee, you will need to create a user in the PME ConfTool system.

a) If you are a new user of 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 registration.

b) If you have been a user of the PME ConfTool system:

- Please log in by entering your existing username and password. If you have forgotten your password, ConfTool will help you to retrieve it.

If you have any problems with registration, please contact the conference registration secretariat at elisabet@umea-congress.se.

7.2 IGPME Membership Only

If you have been an IGPME member in the past, but will not be attending PME42, or you want to become a new IGPME member who will not attend PME42, pay the annual membership fee for IGPME through ConfTool at [www.conftool.com/pme42](http://www.conftool.com/pme42). This is necessary for maintaining or getting membership.

a) As a new member of IGPME:

- Please create a new account and register in the ConfTool 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 the payment of the membership fee.

b) As a member of IGPME who wants to renew membership:
• Please log in to ConfTool by entering your existing username and password. If you have forgotten your password, ConfTool will help you to retrieve it.

If you have any problems with payment of the membership fee, please contact the conference registration secretariat at elisabet@umea-congress.se.

7.3 Registration Fees

7.3.1 Total Registration Fee
The total registration fee for PME42 is 4680 SEK.

The total registration fee covers:

• PME membership for the year 2018 of 416 SEK (no VAT);
• a compulsory Skemp Fund donation of 104 SEK (no VAT);
• a set of printed conference proceedings (see below) and access to an electronic version of the proceedings;
• 4 lunches and 10 coffee breaks;
• opening reception (Tuesday July 3);
• excursion (Thursday, July 5);
• conference dinner (Friday, July 6);
• 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. As with previous conferences, the default option includes both printed and electronic proceedings. During the final registration process, participants can choose the alternative option that includes only electronic proceedings. **If you choose only electronic proceedings, the registration fee will be reduced by 300 SEK.**

7.3.2 Accompanying Person Fee
We welcome accompanying persons. Accompanying persons participate in the social program but not in the scientific program of the conference. The fee for accompanying persons is 1350 SEK per person.

The fee covers:

• opening ceremony and reception (Tuesday, July 3);
• excursion (Thursday, July 5);
• conference dinner (Friday, July 6).
• the costs of venue, administrative work, and facilities needed for the organization of the conference.

There is no fee for accompanying children 13 years of age or less.

Accompanying persons should be registered together with the regular participant in the registration process. It is not possible to register as accompanying person only. If you have any questions, please contact the conference secretariat at elisabet@umea-congress.se.
7.3.3 Late Registration Fees
An additional charge of 500 SEK will be applied for registrations made after May 16, 2018.

7.4 Payment Options
All participants can make their payment by credit/debit card or bank wire transfer. If you use a credit/debit card, the process will be carried out online. The ConfTool system will connect you to an external platform where you will enter your personal information, choose some of the activities such as excursions and in the final step pay the conference fee.

Your registration will only be finalized when the payment process is complete. If you have any questions regarding your payment, please contact the conference secretariat at elisabet@umea-congress.se.

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 7.7). 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 104 SEK is included in the 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 registering for PME42.

7.6 Cancellation Policy
7.6.1 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 registration secretariat by sending an email to elisabet@umea-congress.se. 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.

If a cancellation for conference participation is made after the full registration fee has been paid:
Before June 3, 2018, 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.

After June 3, 2018, the refund will be 50% of the full registration fee minus the conference deposit, and then subtracting the fees that the bank charges for transferring the refund. Refund = 50% of (registration fee – conference deposit) – bank fees.

After July 2, when the conference has started, cancellation is not possible.
Note that these policies concern the registration fee and do not apply to the reservation of accommodation made through the conference. Cancellation policies for reservation of accommodation are specified in section 13.

7.6.2 For Accompanying Persons

If a cancellation for accompanying person is made after the full registration fee has been paid:

Before June 3, 2018, 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.

After June 3, 2018, the refund will be 50% of the amount, subtracting the fees that the bank charges for transferring the refund. Refund = 50% of accompanying person fee – bank fees.

After July 2, when the conference has started, cancellation is not possible.

7.6.3 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.

7.7 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 met during the second International Program Committee meeting, in April 2018, and made its recommendations. **No more applications can be accepted this year.** The PME Administration Manager has already contacted applicants to inform them of the decision on their application for a grant.
8 Important Dates for 2018

8.1 Deadlines for PME42
The deadline of final registration for all participants is **May 16, 2018**. Contributions cannot be presented at the conference and will not be included into the proceedings, if final registration including the payment of the total registration fee is not completed by that date.

Late registration is possible (with an extra fee of 500 SEK) up to the start of the conference, July 2, 2018.

8.2 Deadlines for PME43 in South Africa
Research Forum proposals for PME43 to be held in Pretoria, South Africa, July 7 to 12, 2019, should be submitted before November 1, 2018, to the Administrative Manager (info@igpme.org).

The PME Pre-Submission Support for contributions to PME43 is November 1, 2018. Please refer to Section 6 in this document for further information.

The deadline for the Skemp Fund application for PME43 is March 1, 2019. Please find further information here: www.igpme.org/index.php/annual-conference/skemp-fund-support.

9 Further Information about the Conference

9.1 Letter of Invitation
Delegates requiring a letter of invitation in order to attend the conference may download a PDF document from the ConfTool system, after the registration has been completed. If you have any questions, please contact the conference secretariat at elisabet@umea-congress.se. 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.

9.2 Getting to the Conference Venue
The conference will be held at the Umeå University campus. It is walking distance between the hotels in the city centre and the campus, and it takes 25-30 minutes. However, the easiest way to get from the hotels to Umeå University is by local bus. Local buses depart from Vasaplan in central Umeå, where most hotels are located. A one-way ticket costs 35 SEK. Please note that you cannot pay with cash on the bus. VISA, Master Card and other common credit/debit cards are valid.

You can also buy a card with 10 tickets that can be used during the week. This card costs 230 SEK if you buy it on the bus and 190 SEK if you buy it at the service centre at Vasaplan. The photo shows the card reader you will find on the bus, just put your card where the hand holds the yellow card.

Note that tickets for the local buses are not valid for the airport buses.

Any of the following buses from Vasaplan will take you to the bus stop *Universum*, the position refers to the map on the next page (note that the same number in the opposite direction takes another route).
The name of all bus stops is shown on a sign inside the bus and will be announced in the speakers.

No 2 towards Ersboda Handelsområde (position R).
No 5 towards Strömpilen (position F).
No 8 towards Tomtebo (position E).
No 9 towards Carlshöjd (position O).

Map of Vasaplan

It is also possible to take bus No 1 towards Östra Ersboda (position D) to the University hospital and then take a 3-minute walk to the conference venue at the university campus.

9.3 Facilities at the Conference Venue

Umeå university is very modern and well equipped in every sense. Bathrooms and resting areas are easy accessible. Since the tap water in Umeå is of such high quality, you can fill your water bottle in any tap you can find. The university is also well adapted for the disabled with elevators for every staircase and wide doors to most rooms.

Close to the university you can find a food shop (ICA Supermarket), a pharmacy (Apotek) at the university hospital, and a few restaurants.

9.4 Name Badges

Participants and accompanying persons will receive a name badge. Everyone is requested to wear this badge during the conference to have access to all conference activities. The badge will work as an entrance pass to lunches, coffee breaks, the welcome reception, the excursions and the conference dinner, and to all sessions in the scientific program.
9.5 Internet Facilities

Wireless internet access will be available at the conference sites. The easiest way to connect to the internet is to use eduroam (www.eduroam.org) which is available at Umeå university campus as well as many sites in the city centre. So, if you work at a university where eduroam is available, it is advisable to make sure that you have an account at your home institution before the conference. This will ensure that you can use your own account during the conference. If you do not have access to eduroam, you can find information in the program booklet about access to the wireless internet UmU wlan (can only be used at the conference venue).

9.6 Equipment for presentations

All lecture rooms will be equipped with projectors (VGA-connection, see photo) and whiteboards. If you have entered any other requests during the submission process, you will be contacted by the Local Organising Committee. If you have any questions concerning equipment, please contact elisabet@umea-congress.se.

A good advice is to bring your own adapter to the VGA-cable.

9.7 Food During the Conference

Coffee, tea, juice, water, and some light snacks will be provided at the conference venue during the coffee breaks. For lunch, we will provide a buffet-style lunch with Halal, Kosher, Vegan and Vegetarian options. You will be able to specify your dietary needs in the registration process.

At the conference venue you will also be able to buy special coffee (Cappuccino, Espresso, Latte etc.) at Moccado, the coffee shop close to the lunch area. Here you will also be able to buy soft drinks, ice cream, and candy.

The Moccado coffee shop in Universum
9.8 Extra Copies of Conference Proceedings

PME42 participants may purchase extra copies of the printed conference proceedings when they register online, provided they order and pay for them no later than May 16, 2018. The price is 435 SEK for the hard-copy set. The proceedings must be picked up at the conference either personally or by asking a colleague to do it. Printed copies of the Proceedings will not be mailed. Printed proceedings will also be available by a print-on-demand publisher where participants can order online for a price set by the selling company plus shipping costs. The print-on-demand option will be available on the IGPME homepage after the conference.

10 Travel Information

You can reach Umeå by plane, train, bus, or car. For some countries a temporary visa is necessary. Below follows information about visa, and how you can travel to Umeå and within Umeå. A map of Umeå can be found at the end of this document.

10.1 Visa

An entry visa is a permit required by persons wishing to enter Sweden for a temporary visit on business or to take part in a conference or visit as a tourist. No visa for Sweden is needed for EU citizens, but citizens of non-EU countries may need a visa to visit Sweden. Visas cost €60, are usually valid for a maximum of 90 days, and are valid for the entire Schengen area. To get a visa, participants need a valid passport, a letter of invitation (which can be downloaded from ConfTool for participants that have paid the full registration fee), money for the planned stay, and individual medical travel insurance.

Visa applications are handed in to a Swedish embassy or consulate-general, or to the mission of another Schengen country if there is no Swedish embassy. It normally takes two weeks to get a decision on a visa, but it is recommended that applications are submitted at least two months before travel to Sweden.

If you are unsure if a visa is required, you can check with the Immigration & Checkpoints Authority or with your local consular office. The period of stay granted will be shown on the visit pass endorsement in your passport.

Link to the Swedish Migration Agency: Visas to attend conferences.
Link to the Swedish Government Offices: Countries requiring visa for entry.

10.2 Travelling to Umeå by Plane

Most flights to Umeå depart from Arlanda, Stockholm’s international airport, and takes 55 minutes. SAS (www.flysas.com/en/uk/) and Norwegian (www.norwegian.com/uk/) operate from Stockholm Arlanda (ARN). It is also possible to travel with BRA (www.flygbra.se/home) that operates from Stockholm Bromma (BMA). Umeå has direct flight connections with Gothenburg and Helsinki, NextJet (www.nextjet.se/en) operates from Gothenburg (GOT), and Finnair operates from Helsinki (HEL) (www.finnair.com/gb/gb/).

The airport bus (Swedish: Flygbussen) in Umeå follows a circular route between the airport, the city centre, and the university campus, returning to Umeå City Airport.
During peak periods, buses depart every 20 minutes. The trip from the airport to the city centre takes around 8 minutes, and about another 10 minutes to the university.


Tickets on-board are 70 SEK, and **you can only pay by credit/debit card.** You can also buy bus tickets at the airport using a ticket machine (see picture to the right). It is cheaper than buying it on-board (SEK 50). Along with paying adult, three children under 12 years travel free of charge. With the Airport Bus ticket, you have free transfers within two hours to the local bus lines.

A taxi from the airport to the city centre or the university costs around 200 SEK.

### 10.3 Travelling to Umeå by Train

Train travel to Umeå is easy. There are several departures per day with the SJ high-speed trains from Stockholm city centre or Arlanda airport to Umeå, a trip of 6.5 hours. The overnight train from Stockholm is also a popular option, arriving early in the morning. See the time tables and book online at SJ (www.sj.se/en/home.html#/).

When you arrive to Umeå by train you can choose to stop at Umeå Östra (34 on the map at the end of this document), the train station very close to the university, or at Umeå Central (16 on the map), in the middle of Umeå. Most hotels are within a 5-minute walk from Umeå Central.

### 10.4 Travelling to Umeå by Bus

Ybuss serves Umeå from Stockholm with daily departures along highway E4. A trip from Stockholm to Umeå takes 9-10 hours and costs just under 500 SEK. Booking is done here: www.ybuss.se.

Länstrafiken gets you around the county of Västerbotten and surrounding areas. More information about prices and timetables can be found here: https://www.tabussen.nu/lanstrafiken/english.

The central bus station is close to the train station Umeå Central (you can find the bus station as number 14 on the map at the end of this document). Note that the local city buses (ULTRA, see section 9.2 and 10.6) starts from Vasaplan (15 on the map), not the central bus station.

### 10.5 Travelling to Umeå by Car

Highway E4 stretches along the coastline from Stockholm to Umeå, and further north to Haparanda, on the border between Sweden and Finland. A trip from Stockholm to Umeå takes about 8 hours.
10.6 Taxi and Local Buses in Umeå

The easiest way to get around Umeå is by local bus and the bus company is called Ultra (Umeå lokaltrafik). Local buses depart from Vasaplan in central Umeå (15 on the map). A one-way ticket costs 35 SEK. Please note that you cannot pay with cash on the bus. VISA, Master Card and other common credit/debit cards are valid. Timetables and route network for the local buses can be found here: www.tabussen.nu/ultra/english/. For more information, see Section 9.2.

There are several taxi companies in Umeå and the prices are similar for all companies. It is rather expensive to use taxis, normally a 10 km trip that takes 15 minutes costs about 300 SEK. A trip from Vasaplan to the university (the conference Venue) costs about 150 SEK. Here are the phone numbers to some of the taxi companies:

- Eco Taxi  Tel: +46 (0)90 - 911 911
- Taxi Direkt  Tel: +46 (0)90 - 100 100
- Taxi Kurir Umeå  Tel: +46 (0)90 - 18 18 18
- Umeå Miljötaxi  Tel: +46 (0)90 - 12 12 12
- Umeå Taxi  Tel: +46 (0)90 - 77 00 00

10.7 Map of Umeå

A map of Umeå can be found at the end of this document. You can download a high resolution version of the map here: Map of Umeå.

11 Staying in Umeå

11.1 Language

Swedish is the official language of Sweden and it is the native language of most of the 10 million inhabitants of the country. However, almost all Swedes can to some extent communicate in English and like getting the chance to practise their English now and then. In general, they are really good at it.

11.2 Currency

The Swedish Krona is the currency of Sweden. The currency code for Kronor is SEK, and the currency symbol is kr. The most popular exchange rate is the SEK to EUR rate. Over the last year, one Euro has been between 9.25 SEK and 10.50 SEK. At present (April 2018), one Euro is 10.40 SEK.

Sweden is on its way to becoming a cashless society*. In some places, you cannot pay with cash, in particular on public transport, including buses in Umeå. That is, you either need to buy a ticket beforehand or you need to pay with a credit/debit card.

If you need cash, the easiest way to get it is to use one of the cash machines, called Bankomat. You will find most of them in the city centre but there is also one at the conference venue, outside Universum.

* www.sweden.se/business/cashless-society/
11.3 Tipping
Tipping (Swedish: dricks) is commonly not expected, and it is not rude to refrain from leaving a tip. Tipping is sometimes practised to reward high quality service or as a kind gesture. Tipping is most often done by leaving small change on the table or rounding up the bill. This is mostly done at restaurants (less often if payment is made at the desk).

11.4 Tap Water
The tap water in Umeå is of very high quality and is drinkable for everyone. It is of such good quality that there is no need for chlorination. A good idea can be to bring a water bottle of your own which you can fill in any of the restrooms.

11.5 Power Plug
The standard electrical current used in Sweden is 230 volts AC (50 cycles). Electrical sockets (outlets) in Sweden are one of the two European standard electrical socket types. The Type C and the Type F in the list on this webpage: http://www.worldstandards.eu/electricity/plugs-and-sockets/. If your appliance’s plug does not match the shape of these sockets, you will need a travel adapter in order to plug in. The picture shows a Type F socket, which is the most common type in Sweden.

11.6 Time Zone
Sweden is in the Central European Time Zone. Central European Standard Time (CET) is 1 hours ahead of Greenwich Mean Time (GMT+1).

11.7 Telephone Code and Useful Telephone Numbers
The Sweden country code 46 will allow you to call Sweden from another country. The code 46 is followed by an area code. The Umeå area code is 090 (+46 90 xxxxxx). There is no area code if you are calling a mobile phone (cell phone).

Where to call in case of emergency? There are four main important phone numbers in Sweden:

112 (for emergencies)
11 77 (for medical advice)
114 14 (for non-emergency incidents)
113 13 (for information about non-acute accidents and emergencies)

11.8 Weather
In July, Umeå has daily high temperatures around 20°C (68°F), with an average temperature of around 16°C (61°F). There is some rain on about one quarter of the days, with a total monthly rainfall of around 70 mm. The days are long, with sunrise around 2.30 am and sunset around 11 pm, and it stays light all night.

A warm summers day, a pair of shorts and a t-shirt is perfect, but it might also be a bit chilly so that you need an extra sweater or a jacket.
The conference dinner and most of the excursions will be outdoors. You will need durable shoes and clothing. A jacket or an extra sweater is also recommended.

11.9 Shopping
For those of you who are interested in shopping, the majority of the shops are located in the city centre close to the hotels or at the large shopping mall Avion, on the south side of the river. Connected to Avion you can find IKEA, the famous Swedish company which sells furniture and home accessories. If you would like to visit Avion you can take bus No 4 from Vasaplan towards Söderslätts handelsområde (http://www.retailcentres.se/en/our-retailcentres/sweden/avion-shopping).

11.10 Pre- and Post-Conference Activities
During the excursion day you will be able to visit some of the typical tourist attractions in Umeå and the region nearby. However, if you would like to visit some of them on your own you can always ask the staff at the Tourist Office, which is located close to Vasaplan (https://www.visitumea.se/en).

12 Liability and Insurance
Please check the validity of your insurance before you travel. The Local Organizing Committee does not accept any liability for personal injuries, or for the loss or damage to property belonging to conference participants (or their accompanying persons) either during or as a result of the conference.

13 Accommodation
There are a number of available hotels with rooms held by the conference organisers. These can be booked online via the conference webpage www.pme42.se under Accommodation. For bookings via the conference webpage you will get full support from Umeå Congress.

Note that if you choose to book a hotel room directly from a hotel, or via an external booking system, we will not be able to offer any support from Umeå Congress.

The following cancellation fees apply for your booking if you book through the conference:

- Changes at no cost up until June 1, 2018;
- 200 SEK for changes made on or after June 2, 2018;
- 300 SEK for cancellation of the whole booking up until June 18, 2018; and
- 50% of the total booking value for cancellations made on or after June 19, 2018.

14 Conference Excursions and Conference Dinner
In addition to the scientific program, there will be an excursion afternoon with several options for participants. The excursions are free of charge. During the longer excursions, participants will be given the opportunity to have dinner on their own expense.

In the list below, you can see the options. Note that there are a maximum number of participants on several of the activities. In the registration system you will be asked to choose three alternatives. We will use a random draw in the cases when there is not room for all who want a specific alternative.
Accompanying persons will get the same excursion as the participant they follow, unless you contact Umeå Congress and inform them about your wishes: elisabet@umea-congress.se.

14.1 City Tours and Museums in Umeå

1. **City tour of Umeå by foot and Umeå Contemporary Art museum (Bildmuseet).**

   14.00 – Meet the guides outside of Universum. The tour ends in the city centre around 17.00.

   The group will be guided through Umeå city where we will see buildings of interest such as the City Hall, Umeå City Church, and learn about the history of Umeå. We will also visit Bildmuseet, which received a special commendation from the European Museum of the Year in 2015. It was one of the top candidates for the Swedish Museum of the Year Award, as well as for the Council of Europe Museum Prize. Read more: Bildmuseet.

2. **City tour of Umeå by foot and Guitars, the museum.**

   14.00 – Meet the guides outside of Universum. The tour ends in the city centre around 17.00.

   The group will be guided through Umeå city where we will see buildings of interest such as the City Hall, Umeå City Church, and learn about the history of Umeå. We will also visit Guitars, the museum, the world’s leading collection of guitars; one of the most popular Swedish museums outside Stockholm. Read more: Guitars, the museum.

3. **City tour of Umeå by bus, stone carvings (petroglyphs), Umedalen Skulpturpark, and Umeå Contemporary Art museum (Bildmuseet).**

   14:00 – The bus departs outside of Universum. The tour ends in the city centre around 17.00.

   The bus will take you on the following sites: Norrfor where you will find the northernmost stone carvings (petroglyphs), dating from 3000-2000 BC, Umedalen Skulpturpark which is one of Europe’s most prominent sculpture parks, and Bildmuseet (see above). Read more: petroglyphs and Bildmuseet.

4. **Västerbottens museum at Gammlia and the open-air museum**

   14.00 – Meet the guides outside of Universum. The tour ends at Gammlia around 17.00.

   A diverse range of buildings from across the north part of Sweden have been moved to the open-air museum since early 1921. Together with the collections inside the museum, Gammlia offers an interesting afternoon exploring life in northern Sweden from early Sami culture to modern life. Read more: Västerbottens museum.

5. **A walk in the Gammlia forest with an option for the open-air museum**

   14.00 – Meet the guides outside of Universum. The tour ends at Gammlia between 15.30 and 17.00.

   Gammlia forest (named Stadslien on the map at the end of this document) is surrounded by the city, but you can still walk several hours on narrow tracks. In Sweden you are allowed to walk anywhere in any forest as long as you are careful not to disturb the wildlife. The guides will show around and let you have a relaxing afternoon in the beautiful forest. There will also be an option of a shorter visit to the Gammlia open-air museum after the walk.

14.2 Experiences of Wild Life and Cultural History

6. **Moose safari to Älgens Hus.**

   14:00 – The bus departs outside of Universum. The tour ends in the city centre around 19:00.
Travelling by bus to Älgens hus in the Bjurholm municipality outside Umeå, this trip provides an opportunity to see moose up close – beware! Read more: Älgens hus.

The bus ride will take about one hour in each direction.

7. Excursion to Norrbyskär.

14:00 – The bus departs outside of Universum. The tour ends in the city centre around 21:00.

We will visit Norrbyskär, a beautiful island located in the archipelago of Västerbotten, 40 kilometres south of Umeå, with a fascinating history as Europe’s largest steam sawmill at the eve of the 20th century, and the model society its founders aimed to erect there. Read more: Norrbyskär.

The bus ride will take about 40 minutes to the ferry and the ferry will take about 20 minutes. Participants will be given the opportunity to have dinner on their own expense.

8. Lycksele Zoo

14:00 – The bus departs outside of Universum. The tour ends in the city centre around 22:00.

Lycksele Zoo is the northernmost zoo in Sweden. The zoo specializes in the Nordic fauna and most of the animals that can be found in Scandinavia are represented here - all year round. The enclosures are designed to resemble the natural habitat of the animals as much as possible. Here you can find lots of exciting animals such as wolves, lynx, musk ox, bears, wolverines and wild boar. There are also more common species such as moose, roe deer, reindeer and red deer. Read more: Lycksele zoo.

The bus ride will take about two hours in each direction. Participants will be given the opportunity to have dinner on their own expense.

14.3 Outdoors Physical Experiences

9. Hiking trip along the trail Tavelsjöleden

14:00 – The bus departs outside of Universum. The tour ends in the city centre around 18:00.

Tavelsjöleden is a hiking trail in the vicinity of Umeå. The trail offers many nature experiences, streams and lakes, rare flowers, caves and high mountains with breathtaking views.

The bus ride will take about 30 minutes in each direction.

10. Biking tour along the Umeå river

14:00 – Rental bikes are distributed outside of Universum. The tour ends around 18:00.

Approximately 30 km by bike, first up along the north side of the Umeå river, crossing on a walking bridge, afternoon rest at Klabböle energy centre, and returning along the south side of the river.

11. Beach volleyball by the sea

14:00 – The bus departs outside of Universum. The tour ends in the city centre around 18:00.

We go to Bettnessand, the centre for beach volleyball by the sea outside Umeå. The activities will be supervised by instructors from IKSU beach volleyball, which is a section within the non-profit sports club IKSU. In case of bad weather, the activity will be replaced by indoor beach volleyball at IKSU sports centre.

The bus ride will take about 30 minutes in each direction.

12. An afternoon at IKSU sports centre

14:00 – Meet the guides outside Universum. You can stay at the sports centre as long as you want.
IKSU sports centre is one of the largest sports centres in Europe and offers a large variety of activities including a full sized indoor pool, a well-equipped gym, and an outdoor track-and-field arena. Read more at www.iksu.se.

14.4 Conference Dinner
The conference dinner will be held on Friday, July 6, in Kassjö, a small village 20 minutes from Umeå. Bus transfers will depart from the conference venue and the city centre. The dinner will be an out-door experience, so we advise you to bring durable shoes and clothing for this event. We will supply mosquito repellent and a blanket for each participant.

15 Credits
15.1 PME Logo Design
The PME logo was designed by Catarina Rudälv and Amanda Rudälv.

15.2 Photo Credits
The Umeå River. Photo: Visit Umeå.
The Northern Light. Photo: Mattias Pettersson.
Umeå University campus from above. Photo: Bergslagsbild.
Umeå University campus in summer. Photo: Mattias Pettersson.
Umeå from above. Photo: Visit Umeå.
Aula Nordica. Photo: Mattias Pettersson.
The Lindell building. Photo: Elin Berge.