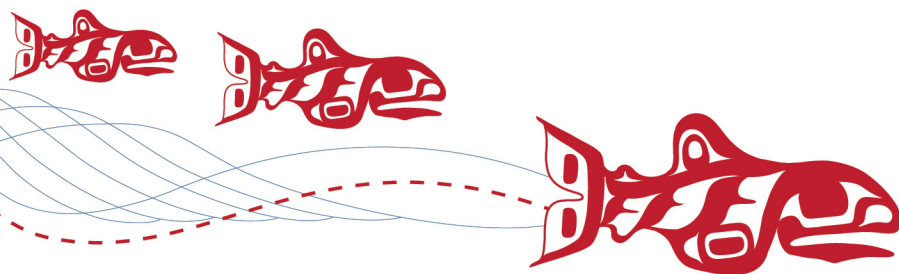


PME 38 / PME-NA 36



First Announcement

Vancouver, Canada | July 15-20, 2014

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Welcome



to Vancouver



PME 2014

Joint Meeting of the International Group for the Psychology of Mathematics Education (PME 38) and the North American Chapter of the Psychology of Mathematics Education (PME-NA 36) in Vancouver, Canada

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1 Welcome

Peter Liljedahl and Cynthia Nicol (Co-Chairs of PME 38 and PME-NA 36) and the Local Organizing Committee are happy to invite you to attend the *Joint Meeting of the International Group for the Psychology of Mathematics Education (PME 38) and the North American Chapter of the Psychology of Mathematics Education (PME-NA 36) in Vancouver, Canada* from July 15 to July 20, 2014.

“Mathematics Education at the Edge” has been chosen as the theme of the conference. Academically, the theme provides opportunities to highlight and examine mathematics education research that is: 1) breaking new ground or on the cutting edge of innovative research and research methodologies; and 2) exploring issues with groups that are often positioned at the edge or periphery of educational research such as social justice, peace education, equity, and Indigenous education. Geographically, the theme *Mathematics Education at the Edge* describes the very place of the conference setting, Vancouver, a city situated at the edge of Canada on the Pacific Ocean and Coast Mountain Range.

All our efforts will be directed towards making our 2014 meeting socially and scientifically successful. We hope that your stay in Vancouver, Canada will be exciting, informative and inspiring and we look forward to seeing you in July 2014.

1.1 Your Hosts

PME 2014 is being co-hosted by Simon Fraser University (SFU) and the University of British Columbia (UBC) on the beautiful UBC campus.



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1.2 Support

We want to thank our sponsors for their generous support in bringing this conference to you.



FACULTY OF EDUCATION



VP ACADEMIC



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Pacific Institute *for the*
Mathematical Sciences

2 Committees of PME 2014

2.1 The International Program Committee (IPC)

Barbara Jaworski	PME	Loughborough University (United Kingdom)
Peter Liljedahl	LOC, PME-NA	Simon Fraser University (Canada)
Cynthia Nicol	LOC	University of British Columbia (Canada)
Kim Beswick	PME	University of Tasmania (Australia)
Olive Chapman	PME	University of Calgary (Canada)
Susan Oesterle	LOC, PME-NA	Douglas College (Canada)
Stefan Ufer	PME	Ludwig Maximilians University of Munich (Germany)
Deborah Moore-Russo	PME-NA	University of Buffalo (USA)

Because PME 2014 is a joint conference the IPC is constituted by an intersection of members representing the PME International Committee (PME), the PME-NA Steering Committee (PME-NA), and the Local Organizing Committee (LOC). These representatives are working together to ensure that the joint conference delivers a first rate scientific program. The joint conference will operate under PME policies and practices.

2.2 The Local Organizing Committee (LOC)

The local organizing committee for PME 2014 in Vancouver is comprised of volunteers from SFU and UBC, as well as a number of other institutions in British Columbia. As of November 1, 2013 the volunteers are:

Simon Fraser University – Peter Liljedahl, Rina Zazkis, Nathalie Sinclair, David Pimm, Ike Udevi-Aruevoru, Darien Allan, Lyla Alsalim, Harpreet Kaur, Kevin Wells, Krishna Subedi, George Ekol, Andrew Hare, Minnie Liu, Oi-Lam Ng, Sean Chorney

University of British Columbia – Cynthia Nicol, Ann Anderson, Susan Gerofsky, Leicha Bragg, Diana Royea, Alayne Armstrong, Rob McDonald, Scott Cartmill, Judy Payley, Myron Medina, Ozlem Denzin, Kwesi Yaro

Elsewhere – Judy Larsen (UFV), Susan Oesterle (Douglas College), Melania Alvarez (PIMS), Jennifer Thom (UVic), Veda Roodal Persad (Langara)

3 PME Conference Secretariat

For any questions regarding PME 38 please contact one of the following three conference secretariats:

Conference Scientific Secretariat

For matters related to scientific issues of the conference (program, presentations, equipment, etc.), please contact scientific@pme38.com.

Conference Registration Secretariat

For matters related to registration and payment, please contact registration@pme38.com.

Conference Administrative Secretariat

For matters related to administrative issues of the conference (accommodation, excursion, travel, etc.), please contact admin@pme38.com.

3.1 Conference Website

PME 2014 has a website which is accessible at <http://www.pme38.com> where you can find up-to-date information on matters contained within this 1st Announcement.

4 About PME and PME-NA

The International Group for the Psychology of Mathematics Education (PME) is an autonomous body, governed as provided for in the 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 (ICME3) held in Karlsruhe, Germany in 1976. The North American Chapter of the PME (PME-NA) is affiliated with PME and shares the same major goals as PME.

The 2014 joint meeting is the 38th meeting of the International Group for the Psychology of Mathematics Education (PME 38) and the 36th meeting of the North American Chapter of the Psychology of Mathematics Education (PME-NA 36). Given the common roots and the uncommon numbering we have chosen to refer to this joint meeting as PME 2014 and will operate under the PME policies and practices.

4.1 The Constitution of PME

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 (www.igpme.org).

4.2 Honorary Members of PME

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

4.3 International Committee of PME

President:	Barbara Jaworski	United Kingdom
Vice President:	Stefan Ufer	Germany
Secretary:	Stephen Hegedus	USA
Treasurer:	Bettina Dahl Søndergaard	Denmark
Members:	Olive Chapman	Canada
	Marta Civil	USA
	Marj Horne	Australia
	Keith Jones	United Kingdom
	Guri A. Nortvedt	Norway
	Anke Lindmeier	Germany
	Oh Nam Kwon	South Korea
	Masakazu Okazaki	Japan
	Núria Planas	Spain
	Leonor Santos	Portugal
	Michal Tabach	Israel
	Tai-Yih Tso	Taiwan
	Wim van Dooren	Belgium

4.4 PME Administrative Manager

Bettina Roesken-Winter

Ruhr-Universitaet Bochum
 Fakultaet fuer Mathematik, NA/3/28
 UniversitaetsstraÙe 150
 44780 Bochum, Germany

Phone: +49 (0) 23432-23311

Email: bettina.roesken@rub.de

4.5 The Constitution of PME-NA

The constitution of PME-NA was adopted by the PME-NA AGM on October 24, 1982 and changed by the PME-NA AGM on October 28, 2006. The major goals of the group are the same as PME:

- 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-NA and its constitution can be found at the PME-NA Website: www.pmena.org.

4.6 Steering Committee of PME-NA

Chair:	Amanda Jansen	University of Delaware (USA)
Treasurer:	Ji-Eun Lee	Oakland University (USA)
Graduate Rep:	Julie Nurnberger-Haag	Michigan State University (USA)
Webmaster:	José Luis Cortina	Universidad Pedagógica Nacional (México)
Past Conference:	Alison Castro Superfine	University of Illinois at Chicago (USA)
Past Conference:	Mara V. Martinez	University of Illinois at Chicago (USA)
Current Conference:	Peter Liljedahl	Simon Fraser University (Canada)
Current Conference:	Susan Oesterle	Douglas College (Canada)
Future Conference:	Kristen Bieda	Michigan State University (USA)
Future Conference:	Tonya Bartell	Michigan State University (USA)
	Marcey Wood	University of Arizona (USA)
	Verónica Hoyos	Universidad Pedagógica Nacional (México)
	Andy Norton	Virginia Tech (USA)
	Jennifer Eli	University of Arizona (USA)
	Donna Kotsopoulos	Wilfred Laurier University (Canada)
	Wendy Sanchez	Kennesaw State University (USA)
	Amy Hackenberg	Indiana University (USA)
	Erik Tillema	Indiana University – Purdue University Indianapolis (USA)

5 The Scientific Program

The theme of the Joint 38th PME and 36th PME-NA Conference is:

“Mathematics Education at the Edge”

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 a Short 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

- Plenary Lectures
- Plenary Panel

Personal presentations

- Research Reports (RR)
- Short Oral Communications (SO)
- Poster Presentations (PP)

Group activities

- Research Forums (RF)
- Discussion Groups (DG)
- Working Sessions (WS)
- Ad Hoc Meetings (AH)
- National Presentation (NP)

5.1 Plenary Sessions

5.1.1 Plenary Lectures

There will be four plenary addresses from invited speakers, each lasting 60 minutes. Each plenary address will respond to the theme of the conference from a different perspective. A reactor will be present at some of the plenary sessions to comment on the presentations for 15 minutes; following the reactor's comments the presenter will have 10 minutes to respond.

The plenary speakers for PME 2014 who will speak to the theme of *Mathematics Education at the Edge* related to innovative research and research methodologies are:

- George Hart (USA)
- Luis Radford (Canada)
- Orit Zaslavsky (Israel and USA)
- Gabriele Kaiser (Germany)

5.1.2 Plenary Panel

A Plenary Panel will be offered on *The Calculus of Social Change – Mathematics at the Cutting Edge*. Panel members at PME 2014 are:

- Mamokgethi Setati Phakeng (South Africa, Convenor)
- David Wagner (Canada)
- Paola Valero (Denmark)
- Margaret Walshaw (New Zealand)
- Anjum Halai (Pakistan and Tanzania)

5.2 Personal Presentations

All presentations (except RF) are submitted for review through ConfTool (www.conftool.com/pme/), the online conference registration system. ConfTool is configured to only accept submissions from presenters who are registered in the ConfTool system (see 8.1 Conference Pre-Registration) and have paid the non-refundable conference deposit (see 8.3.1 Conference Deposit). Detailed guidelines and instructions can be found at www.pme38.com/submissions/ on the conference website.

5.2.1 Research Report (RR)

Content

Research Reports (RR) should deal with topics related to the major goals of PME and PME-NA. Reports 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.

Each participant is allowed to present only one Research Report. No one is allowed to have his or her name on the program more than four times, as an author or co-author, on any kind of presentation or group session.

Two types of papers are suitable for Research Reports:

1. Reports of empirical studies

Observational, ethnographic, experimental, quasi-experimental, and case studies are all suitable. Reports of empirical studies should contain, at minimum, the following:

- a statement regarding the focus of the submitted paper;
- the study's theoretical framework;
- references to the related literature;
- an indication of and justification for the study's methodology;
- 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 contain, at 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

Proposals for Research Report presentations are no more than **eight pages** (see 6 General Guidelines for Proposals) submitted via [ConfTool](#) no later than January 15, 2014. Submissions to ConfTool are only allowed if the presenting author is registered in the ConfTool system (see 8.1 Conference Pre-Registration) and has paid the non-refundable conference deposit (see 8.3.1 Conference Deposit). Detailed guidelines and instructions can be found at www.pme38.com/submissions/ on the conference website.

Review Process

The submitted proposals for the Research Reports will be reviewed by three PME members whose areas of expertise match the applicant's chosen research categories. Notification of the decision of the International Program Committee to accept or reject the Research Report proposal will be available after the 2nd meeting of the International Program Committee in April 2014. An accepted paper will appear in the proceedings only if full payment of the conference fee is made no later than May 20, 2014.

The Local Organizing Committee recruits potential reviewers from experienced PME members who have presented either two PME Research Reports in the last five years or presented three PME Research Reports in the last ten years.

Reviewers for reports of studies (empirical research) will be asked to comment on the following: theoretical framework and related literature, methodology (if appropriate), statement and discussion of results, clarity, and relevance to a PME audience.

Reviewers for theoretical and philosophical essays will be asked to comment on the theoretical framework and related literature, the articulated statement of the author's positionality, the implications for existing and further research, and the relevance to the wider PME audience.

Presentation

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

5.2.2 Short Oral Communication (SO)

Content

Short Oral Communications are intended for research that is best communicated by means of a short oral communication instead of a full research report.

Submission

Proposals for Short Oral Communications are **one-page** summary (see 6 General Guidelines for Proposals) submitted via [ConfTool](#) no later than March 1, 2014. Submissions to ConfTool are only allowed if the presenting author is registered in the ConfTool system (see 8.1 Conference Pre-Registration) and has paid the non-refundable conference deposit (see 8.3.1 Conference Deposit). Detailed guidelines and instructions can be found at

www.pme38.com/submissions/ on the conference website. Advice on how to prepare a Short Oral paper can be found on the PME website (<http://igpme.org/index.php/annual-conference/contributions/preparing-so-and-pp>).

Review Process

Proposals are reviewed by the International Program Committee. Notification of the decision of the International Program Committee to accept or reject the Short Oral proposal will be emailed in April 2014.

The one-page summary will appear in the proceedings only if full payment of the conference fee is made no later than May 20, 2014.

Presentation

The total time for a Short Oral Communication is **20 minutes**: 10 minutes for the oral presentation and 10 minutes for questions and/or comments. Three presentations will be grouped according to distinctive themes.

5.2.3 Poster Presentation (PP)

Content

Poster Presentations are intended for information/research that is best communicated in a visual form rather than as a formal paper presentation.

Submission

Proposals for Poster Presentations are **one-page** abstracts (see 6 General Guidelines for Proposals) submitted via [ConfTool](#) no later than March 1, 2014. Submissions to ConfTool are only allowed if the presenting author is registered in the ConfTool system (see 8.1 Conference Pre-Registration) and has paid the non-refundable conference deposit (see 8.3.1 Conference Deposit). Detailed guidelines and instructions can be found at www.pme38.com/submissions/ on the conference website. Advice on how to prepare a Poster Presentation paper can be found on the PME website (<http://igpme.org/index.php/annual-conference/contributions/preparing-so-and-pp>).

Review Process

Proposals are reviewed by the International Program Committee. In order for a proposal to be reviewed, the presenting author must pay the conference deposit when the proposal is submitted. Notification of the decision of the International Program Committee to accept or reject the poster proposal will be emailed in April 2014.

The one-page summary will appear in the proceedings only if full payment of the conference fee is made no later than May 20, 2014.

Presentation

There will be a Poster Presentation session in the conference program. Author(s) should be available in this session for discussion with conference participants.

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 (www.conftool.com/pme/), the online conference registration system. ConfTool is configured to only accept submissions from presenters who are registered in the ConfTool system (see 8.1 Conference Pre-Registration) and have paid the non-refundable conference deposit (see 8.3.1 Conference Deposit). Detailed guidelines and instructions can be found at www.pme38.com/submissions/ on the conference website.

5.3.1 Research Forums (RF)

Content

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.

A Research Forum:

- focuses on a topic that is of substantial interest within the work of PME;
- stimulates critical dialogue around this topic through the consideration of multiple perspectives;
- has a coherent structure that encourages intellectual debate;
- involves planned input to this critical dialogue from at least five researchers;
- and includes structural opportunities for interaction by the audience, and avoids the need for long presentations through the use of well-advertised prior reading.

Submission and Review Process

The deadline for Research Forum proposals is October 1 in the year before the conference (for PME 2014 it has been extended to November 1, 2013). As such, the details that follow are for participants considering a submission for PME 39 in 2015. A **five-page** proposal should be sent to the PME Administrative Manager (info@igpme.org) and must include:

- the title and focus of the Research Forum;
- the name of the coordinator and assistant coordinator (if desired);
- key question(s) that the Research Forum will address;
- a detailed description of the proposed format of the Research Forum, including timing, contributors, how they will be chosen, plans for audience interaction;
- details of prior reading and how this can be made available;
- and how the space within the proceedings will be used (up to 30 pages).

The International Program Committee will review the proposals and provide feedback to the coordinators. If a proposal is provisionally accepted, the coordinators will be required to provide the final version of their proposal by January 15, 2014. The International Program Committee makes the final decision during its first meeting in January 2014. If a proposal is given final acceptance at this time, the coordinators of the Research Forum will be required to submit the text for the proceedings no later than May 1, 2014.

The total length of a final Research Forum paper for the proceedings is **30 pages**. It should follow the same specifications as given for Research Reports (see 6 General Guidelines for Proposals) and must be submitted via [ConfTool](#). Accepted proposals will be included in the conference proceedings provided the full conference fees for all coordinators are paid before May 20, 2014 (see 8.3.2 Total Registration Fees). Detailed guidelines and instructions can be found at www.pme38.com/submissions/ on the conference website.

Presentation

Two **90-minute** slots will be devoted to each Research Forum. For more information, please contact the conference scientific secretariat at scientific@pme38.com.

5.3.2 Discussion Group (DG)

Content

The objective of a Discussion Group is to provide attendees with the opportunity to discuss a specific research topic of shared interest. The idea of a Discussion Group may be the result of an Ad hoc Meeting or an intensive discussion of a Research Report during the previous conference. Discussion Groups may begin with short synopses of research work, or a set of pressing questions. A Discussion Group is exploratory in character, and is especially suitable for topics which are not appropriate for collaborative work in a Working Session because they are not yet elaborate enough or because a coherent research strategy has not been identified. A successful Discussion Group may result in an application for a Working Session one year later.

Submission

Proposals for Discussion Groups are a **one-page** summary (see 6 General Guidelines for Proposals) submitted via [ConfTool](#) no later than March 1, 2014. Submissions to ConfTool are only allowed if the presenting author is registered in the ConfTool system (see 8.1 Conference Pre-Registration) and has paid the non-refundable conference deposit (see 8.3.1 Conference Deposit).

The one-page proposal for a Discussion Group application must include:

- names of a coordinator and an assistant coordinator, both of whom must be active members of PME;
- information about the theoretical background of the topic of the Discussion Group as well as questions or goals which guide the work in the Discussion Group;
- a short outline about the goals and/or activities planned for each of the two-90 minute sessions;
- a plan for how the attendees can participate actively in the discussion (a Discussion Group must not consist solely of presentations).

Detailed guidelines and instructions can be found at www.pme38.com/submissions/ on the conference website.

Review Process

The International Program Committee reviews and selects the Discussion Group proposals. Notification of the decision of the International Program Committee to accept or reject the proposal will be emailed in April 2014. Accepted proposals will be included in the conference proceedings provided the full conference fees for the coordinators are paid before May 20, 2014 (see 8.3.2 Total Registration Fees).

Presentation

Two 90-minute sessions will be allocated to Discussion Groups. After the conference, coordinators of each Discussion Group are required to send a report of its activities to the PME Administrative Manager (info@igpme.org). This report may be included in the PME newsletter. This report is due by the end of September 2014. For more information, please contact the conference scientific secretariat at scientific@pme38.com.

5.3.3 Working Sessions (WS)

Content

The aim of Working Sessions is that PME participants collaborate in joint activities on a research topic. For this research topic, there must be a clear research framework or research strategy and precise goals so that a coherent collaborative activity is ensured. Ideas for a Working Session can result from Discussion Group sessions of previous conferences where a topic was elaborated upon and a research framework or strategy was developed. Each Working Session should be complementary to the aims of PME and ensure maximum involvement of each participant.

Submission

Proposals for Working Sessions are a **one-page** proposal (see 6 General Guidelines for Proposals) submitted via [ConfTool](#) no later than March 1, 2014. Submissions to ConfTool are only allowed if the presenting author is registered in the ConfTool system (see 8.1 Conference Pre-Registration) and has paid the non-refundable conference deposit (see 8.3.1 Conference Deposit).

The one-page proposal for a Working Session application must include:

- names of a coordinator and an assistant coordinator, both of whom must be active members of PME;
- information about the theoretical background of the topic of the Working Session as well as descriptions of specific tasks or activities to be carried out in the sessions;
- a short outline of the goals and/or activities planned for each of the two 90-minute sessions.

Detailed guidelines and instructions can be found at www.pme38.com/submissions/ on the conference website.

Review Process

The International Program Committee reviews and selects the Working Session proposals. Notification of the decision of the International Program Committee to accept or reject the proposal will be emailed in April 2014. Accepted proposals will be included in the conference proceedings, provided the full conference fee for the coordinators is paid before May 16, 2014 (see 8.3.2 Total Registration Fees).

Presentation

Two 90-minute sessions will be allocated to Working Sessions. After the conference, coordinators of each Working Session are required to send a report of its activities to the PME Administrative Manager (info@igpme.org). This report may be included in the PME newsletter. This report is due by the end of September 2014. For more information, please contact the conference scientific secretariat at scientific@pme38.com.

5.3.4 Ad Hoc Meetings (AH)**Content**

Ad Hoc Meetings are a form of conference activity that was 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 Short Oral Communication are not allowed.

Procedure

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. 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.

It is not possible to organize an Ad Hoc Meeting before the conference. For more information, please contact the conference scientific secretariat at scientific@pme38.com.

5.3.5 National Presentation (NP)**Content**

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.

Review process

There is no specific submission and reviewing process. The conference chair informs the International Program Committee about the National Presentation during the 2nd International Program Committee meeting and announces the National Presentation in the program.

Presentation

One 90-minute session will be allocated to the National Presentation.

5.4 Young Researchers Day

For the first time, and as a pilot, PME is pleased to offer a special day for young (early career) researchers who are also attending the PME conference. The 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. If it proves to be of interest and value, the IC and local organizations will propose to the AGM that such an event should become a permanent feature of PME activity.

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

Young Researchers Day [YRD] will be held July 14, 2014 at the University of British Columbia, Vancouver. The day will comprise of workshops facilitated by internationally recognized PME scholars including Dr. David Pimm, Dr. Nathalie Sinclair, and Dr. Susan Gerofsky as well as PME representatives Dr. Tim Rowland and Dr. Joao Filipe Matos. It will also include a social program to provide opportunities for informal exchanges and further networking.

The recommended maximum number of participants for this YRD is 50. Registration fees and meals for July 14 are complimentary (no cost). Applications will be accepted through [ConfTool](#). Although there is no additional charge for YRD, ConfTool is configured to only accept submissions from people who are registered in the ConfTool system (see 8.1 Conference Pre-Registration) and have paid the non-refundable conference deposit (see 8.3.1 Conference Deposit). The deadline for application is March 1, 2014.

Priority will be given to applicants in their final year of their doctoral studies. Special consideration will be given to applicants from under-resourced parts of the world to guarantee the representation of diverse countries.

Detailed information can be found at www.pme38.com/program/ on the conference website.

6 General Guidelines for Proposals

6.1 Submitting a Proposal

All proposals (except for Research Forums, see 5.3.1) must be submitted online via ConfTool (www.conftool.com/pme/). Make sure that your proposal is formatted correctly using the conference template (www.pme38.com/wp-content/uploads/2013/11/Template-PME-2014.doc) and that you have named and saved it as directed below. **Proposals that do not follow the formatting guidelines cannot be accepted!**

The submissions should also include all required information related to research categories (see 6.2 Table of Research Categories). You will select these categories when you submit your proposal through ConfTool.

All files for PME 2014 should be submitted in DOC format via the online system by the dates stated for each type of presentation. If required, a blind version of the paper without authors' names or identifying information should be submitted in PDF format. Instructions for submitting the blind version will be given in ConfTool if such a version is required.

The following rules apply to all types of proposals. In addition to these guidelines, all proposals should be concerned with mathematics education and conform to the major aims of PME and PME-NA as stated in the constitutions (see 4.1 and 4.5).

6.1.1 Content

- Completed research as well as ongoing studies may be submitted, provided that the theoretical framework, preliminary results and related literature appear in the proposal. The authors should state what is new in their research, how it builds on past research, and/or develops into new directions.
- Papers should be concise but should also contain the necessary information to inform both the reviewers and other researchers.
- Proposals too similar to papers previously presented will not be accepted.
- You must use a [template](#) for the final version of the submitted paper. The template can be downloaded from www.pme38.com/submissions/ where you will find the template and the instructions on how to use it.

6.1.2 General Regulations

- **Each applicant can be the presenting author on only one Research Report or one Short Oral presentation.** Each RR or SO applicant may also present a poster, as well as be a plenary speaker or plenary panelist, or a coordinator/presenter of a Research Forum Working Session, or Discussion Group, if he or she wishes. **No author's name should appear in the program more than four times**, including Research Reports (RR), Short Orals (SO), Poster Presentations (PP), Research Forums (RF), Working Sessions (WS), and Discussion Groups (DG).
- In the case of personal presentations, **only the person designated as presenting author of the paper can present the paper.** In the case of group activities, **only the coordinator(s) and announced authors can be the presenters during the**

group sessions. The names and addresses of presenting authors and first coordinators (i.e., those designated as the author/coordinator) will be included in an appendix of the proceedings.

- In order to have a proposal for a RR or RF considered by the International Program Committee and sent to reviewers, the presenting author(s) **MUST** be pre-registered as participant(s), and have paid the non-refundable conference deposit by January 15, 2014.
- In order to have a proposal for a SO, PP, WS or DG considered by the International Program Committee, the presenting author(s) must be pre-registered as participant(s), and have paid the non-refundable conference deposit by March 1, 2014.
- By submitting, you assure that the submitted work is owned by yourself or owned by someone else from whom you have permission to provide the work to PME as a contribution to the Proceedings of the Joint Meeting of the International Group for the Psychology of Mathematics Education (PME 38) and the North American Chapter of the Psychology of Mathematics Education (PME-NA 36). In the case that your contribution is accepted, you agree to provide this work to PME for publication in the Proceedings of the Joint Meeting of PME 38 and PME-NA 36 without charge. This also includes online publication on the PME website and publication via a print-on-demand service.

6.1.3 Format of Papers

Maximum number of pages: The page limit is dependent on the type of proposal (RR = 8, SO, PP, DG, WS = 1). **The specified limit includes references, figures, and appendices.**

Titles: The title should be capitalized and centered. The author's (and co-authors') name(s) and affiliation(s), in this order, must be included. The name(s) of the presenting author(s) must be underlined.

References: In the APA standard style (American Psychological Association) – see the [template](#) for examples.

Files and Filenames: Files should be saved in **DOC format**, and filenames should indicate the type of proposal as well as the name of the presenting author, as detailed below.

- Use RR, SO, PP, DG, RF, WS for Research Report (RR), Short Oral Communication (SO), Poster Presentation (PP), Discussion Group (DG), Research Forum (RF), and Working Session (WS) respectively.
- For example, a proposal for a Short Oral, by FirstName LastName (e.g., John Smith) for publication in the Proceedings, should be saved as SO_LastName.doc (e.g., SO_Smith.doc).

Paper Format: All proposals are to use A4 paper format with a frame of 170 by 247 mm. The font should be 14 point, *Times New Roman* is recommended, with a 16-point line space and 6 points between paragraphs.

- **DO NOT** number the pages.
- Use exact dimensions, and fill the entire frame.
- Remember that the original text will be reduced to 70% for inclusion in the proceedings; changes in style will incur difficulties in the printing of the proceedings.
- Please be sure that files do not exceed 2 MB.
- **IT IS STRONGLY RECOMMENDED THAT ALL SUBMISSIONS ARE PRODUCED USING THE PME [TEMPLATE](#).**

6.2 Table of Research Categories

This section is for your reference when completing the reviewer information or the proposal information for personal presentations. Reviewers will receive proposals for reviewing according to the research categories they mark when registering as a reviewer. The proposals will be sent to reviewers according to the research categories that are marked by the submitting author. All proposals must be concerned with mathematics education.

6.2.1 Research Domains in Mathematics Education

01 Algebra and algebraic structures	13 Preservice teacher preparation
02 Arithmetic, numbers and operations	14 Classroom assessment
03 Calculus and functions	15 Educational evaluation and policy
04 Geometry, space and shape	16 Classroom interaction and discourse
05 Probability and statistics	17 Conceptual change and development
06 Imagery and visualization	18 Curriculum development and task design
07 Problem solving and problem posing	19 Teaching and learning with technologies
08 Proof, argumentation and reasoning	20 Tools, semiotics and gestures
09 Representations and modeling	21 Affect, emotions and attitudes
10 Teacher beliefs	22 Culture, language and multilingualism
11 Teacher knowledge and practice	23 Equity and gender issues
12 Teacher professional development	24 Special needs education

6.2.2 Grade Levels

- 01 Pre-School (age under 7, and teachers of this grade level)
- 02 Elementary (age 5-12, and teachers of this grade level)
- 03 Secondary (age 10-18, and teachers of this grade level)
- 04 Post secondary (age 16+, and teachers of this grade level)
- 05 Vocational education (and teachers in these contexts)
- 06 Adult education and out-of-school mathematics (and teachers in these contexts)

6.2.3 Types of Research

- 01 Qualitative/interpretative methods
- 02 Quantitative methods
- 03 Mixed methods
- 04 Theoretical/philosophical analysis

6.3 Equipment for Presentations

For an efficient organization of the conference, we need information about the equipment presenters want to use. On-site booking of equipment will not be possible and hence has to be done in advance. It is not clear at this time if PME 2014 will be able to provide computers in every room. More information is expected by the second announcement. In the meantime, it is best to assume that having your own laptop for your presentation is needed. During the online registration process in ConfTool you are asked to choose from the following options:

- OHP Projector
- Data Projector

Please indicate your preference and needs when completing the online registration and presentation submission via [ConfTool](#). For any other kind of equipment, please email the scientific secretariat at scientific@pme38.com.

7 PME Pre-Submission Support

The PME pre-submission support for Research Reports and Short 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 Nathalie Sinclair (nathsinc@sfu.ca) from Canada.
- The PME pre-submission support deadline is in September in the year before the conference. People who wish to have a mentor for the **PME 39 Conference in 2015** should submit a Research Report or Short Oral Communication and contact the coordinator as early as possible, but no later than September 1, 2014.
- The pre-submission support papers should be accompanied by a statement in which the authors describe:
 1. their limited experience in writing research reports (or journal articles), and
 2. 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.

8 Registration and Payment

8.1 Conference Pre-Registration

Pre-registration for PME 2014 will be carried out online using the ConfTool conference registration system, at www.conftool.com/pme38. Before registering for the conference or paying the membership fee, you need to register in the ConfTool system.

1. a) If you are a **new user** for ConfTool:
 - 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.
- b) If you already **have been a user** of ConfTool:
 - Please enter your username and password to login 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.
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 where you can find additional information on payment options for the conference deposit.
3. If you choose online payment, the system will connect you with a secure page for you to complete your payment (see 8.4 Payment).

If you have any problems with your conference pre-registration, please contact the conference registration secretariat at registration@pme38.com.

8.2 PME Membership Only

If you have been a PME member in the past, but will not be attending PME 2014, or you want to become a new PME member who will not attend PME 2014, pay the annual membership fee for PME through [ConfTool](#). This is necessary for maintaining or getting membership.

1. a) As a **new member** of PME:
 - 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.*”
- b) As a **member** of PME who wants to renew membership:
 - Please login by entering your username and password and 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 where you can get information on payment options for the membership fee.

3. If you choose online payment, the system will connect you with a secure page for you to complete your payment (see 8.4 Payment).

If you have any problems with payment of the membership fee, please contact the conference registration secretariat at registration@pme38.com.

8.3 Registration Fees

The total registration fee will be paid in Canadian dollars (CAD) and is expected to be around **\$550 CAD** (about 385 €)¹ depending on the anticipated number of participants and external financial support. The exact amount will be decided by the International Program Committee in April 2014, just prior to the publication of the 2nd announcement. As with other PME conferences, the upper limit for the registration fee will be 450 €(about \$640).

8.3.1 Conference Deposit

The **non-refundable** conference deposit is **\$150** (about 105 €). For those who attend the conference, the conference deposit will be deducted from the full conference registration fee. The balance of the conference fee must be paid no later than May 20, 2014.

The conference deposit covers:

- PME membership for the year 2014 of \$57 (exactly 40 €)² with a \$14 (exactly 10 €) compulsory Skemp Fund donation;
- for North Americans it also covers the PME-NA membership fee of \$20 USD³ (non-students) or \$10 USD (students);
- access to electronic conference proceedings;
- and administrative costs related to the handling of the proposals.

8.3.2 Total Registration Fee

The total registration fee covers:

- PME membership fee of \$57 (exactly 40 €) for the year 2014 with a \$14 (exactly 10 €) compulsory Skemp Fund donation;
- for North Americans it also covers the PME-NA membership fee of \$20 USD (non-students) or \$10 USD (students);
- a set of printed conference proceedings (see below) and access to an electronic version of the proceedings;
- 4 lunches and 8 coffee breaks;
- opening reception (Tuesday, July 15, 2014);
- conference dinner (Saturday, July 19, 2014);

¹ All dollar amounts (\$) are Canadian Dollars (CAD) unless otherwise specified. Estimates between Euro (€) and Canadian dollar (\$) amounts are based on the exchange rate on November 25, 2013 and are provided only as comparators. All costs to participants will be fixed in Canadian Dollars (CAD).

² PME membership and Skemp fees are set by PME in EUR.

³ PME-NA membership fees are set by PME-NA in USD. As of November 25, 2013 the exchange rate between CAD and USD is within \$1.

- excursions and social events;
- and the costs of venue, administrative work, and facilities needed for the organization of the conference.

Following the decision of the AGM during PME 36, 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 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 (www.pme38.com) and in the 2nd Announcement in April 2014.

As announced during the AGM of PME 36, printed proceedings should also be available by a print-on-demand publisher where participants can order online for a price of about \$60-70 (about 42-49 €) plus shipping costs. The hyperlink will be announced on the conference website (www.pme38.com) and the PME website (www.igpme.org) as soon as it is available.

8.3.3 Accompanying Person Fee

We welcome accompanying persons. The fee for accompanying persons is expected to be around \$150-200 (about 105-140 €) per person depending on the anticipated number of participants and external financial support. The exact amount will be decided by the International Program Committee in April 2014, just prior to the publication of the 2nd Announcement. The fee covers:

- opening reception (Tuesday, July 15, 2014);
- conference dinner (Saturday, July 19, 2014);
- excursions and social events;
- and some of the administrative work involved outside of the scientific program.

There is no fee for accompanying children under 14 years of age. If you have any questions, please contact the administrative secretary at admin@pme38.com.

8.3.4 Late Registration Fees

An additional charge of \$70 (about 49 €) will be applied for registrations made after May 16, 2014.

8.4 Payment Options

All participants can make their payment by credit card, Interac card, or wire transfer.

If you use a **credit card** the process will be carried out online. The ConfTool system will connect you to a secure payment site within the accounting system at The University of British Columbia. There you will enter your credit card information and will receive a receipt for your transaction.

If you choose to pay by **Interac card** the process will be carried out online. Interac payments are only accepted from the following banks: Bank of Montreal (BMO), Royal Bank of Canada (RBC), ScotiaBank, or Toronto Dominion Canada Trust (TD). The ConfTool system will connect you to a secure payment site within the accounting system at The University of British Columbia. There you will enter your Interac card information and will receive a receipt for your transaction.

If you choose to pay by **bank wire transfer** you will need to transfer the funds to the account printed below. **Make sure that the bank transfer fees are not charged to the recipient.** To finish the payment process, please print the confirmation of bank transfer and send it by email with your full name to registration@pme38.com.

Your pre-registration will only be finalized when the payment process is complete.

Bank transfer in CAD funds

Beneficiary Bank (SWIFT tag 57):	HSBC Bank Canada Vancouver Main Branch 885 West Georgia Street Vancouver, B.C. Institution: 016 Transit: 10020 SWIFT CODE: HKBCCATT
Beneficiary (SWIFT tag 59):	020437218002 University of British Columbia #305-2075 Wesbrook Mall Vancouver, BC, Canada, V6T 1Z1
Remittance detail (SWIFT tag 70):	Scott Cartmill/ EDCP / 2-4531 PG# 15G21923 / CGKH

If you have any questions regarding your payment, please contact registration@pme38.com.

8.5 Donations to the 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 8.7). 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 10 €(about \$14) 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.

8.6 Cancellation Policy

8.6.1 For registered participants

The registration for participation in the conference is binding. All cancellations and changes regarding the conference registration must be made in written form to the conference registration secretariat by sending an email to registration@pme38.com. 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 15, 2014**, the refund will be the amount of the full registration fee minus the conference deposit and the fees that the bank charges for processing the refund.

$$\text{refund} = (\text{registration fee} - \text{conference deposit}) - \text{bank fees}$$
- **After June 15, 2014**, 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.

$$\text{refund} = 50\% \text{ of } (\text{registration fee} - \text{conference deposit}) - \text{bank fees}$$

8.6.2 For accompanying persons

- **Before June 15, 2014**, the amount paid minus the fees that the bank charges for transferring the refund will be refunded.

$$\text{refund} = \text{registration fee} - \text{bank fees}$$
- **After June 15, 2014**, the refund will be 50% of the full registration fee, subtracting the fees that the bank charges for transferring the refund.

$$\text{refund} = 50\% \text{ of } \text{registration fee} - \text{bank fees}$$

8.6.3 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.

8.7 Richard Skemp Memorial Support Fund & Application for Support

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, SO, 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, SO, 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 a Short Oral 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 2nd International Program Committee meeting, at the beginning of April 2014, 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 not available in advance.

Applicants for a Skemp Fund grant should fill in the application form available from the conference website (www.pme38.com/registration/) or from the PME website ([Annual Conference/Skemp Support Fund](#)). The application should be sent by **March 1, 2014** to:

Bettina Roesken-Winter

Ruhr-Universitaet Bochum

Fakultaet fuer Mathematik, NA/3/28

Universitaetsstrasse 150

44780 Bochum, Germany

Email: bettina.roesken@rub.de

If you do not receive an acknowledgement of receipt within 10 days, please resend it. For more information visit the PME Website at www.igpme.org.

9 Important Dates for PME 2014

9.1 Scientific Program

Type of session	Action	Date
Personal Presentation:		
Research Report (RR)	Pre-Registration & Proposals & Payment of Conference Deposit	January 15, 2014
Short Oral (SO)	Pre-Registration & Proposals & Payment of Conference Deposit	March 1, 2014
Poster Presentations (PP)	Pre-Registration & Proposals & Payment of Conference Deposit	March 1, 2014
Group Activities:		
Research Forum (RF)	Proposals	November 1, 2013
	Pre-Registration & Proposals & Payment of Conference Deposit	January 15, 2014
	Full Papers	May 1, 2014
Working Sessions (WS)	Pre-Registration & Proposals & Payment of Conference Deposit	March 1, 2014
Discussion Groups (DG)	Pre-Registration & Proposals & Payment of Conference Deposit	March 1, 2014
All accepted submissions	Final Registration	May 20, 2014

9.2 Registration

Pre-registration	Necessary for proposals to be reviewed	Starting on December 1, 2013
Final Registration	Necessary for accepted proposals to be included in the PME proceedings	May 20, 2014
Late Registration Fee	Registration fee plus additional \$70 (about 49 €)	After May 20, 2014

9.3 Deadlines for PME 39, 2015

PME Pre-Submission Support	Contact Nathalie Sinclair (nathsinc@sfu.ca)	September 1, 2014
Research Forums	Proposals to the PME Administrative Manager (info@igpme.org)	November 1, 2014

10 Travel Information

10.1 About Vancouver



Vancouver is the largest city in the Canadian province of British Columbia. Located on Canada's west coast, Vancouver is a coastal, seaport city characterized by a mild, oceanic climate and scenic views of both mountains and the sea. Even though Vancouver is located on the mainland, it is surrounded by water on three sides. In addition to being recognized as one of the most livable cities in the world, Vancouver is also known for its multiculturalism. In fact, it is one of the most

ethnically diverse cities in Canada. The city of Vancouver was founded on First Nations territory and now boasts more than 300 city-run parks, beaches, and gardens, including Stanley Park, one of the largest urban parks in North America. Vancouver is a popular tourist attraction and has been host to many international conferences and events, including the 2010 Winter Olympics. Vancouver and the surrounding area is also home to many universities and colleges, including the University of British Columbia and Simon Fraser University.

For more information on the city of Vancouver, see the following links:

- <http://vancouver.ca/>
- <http://www.vancouverattractions.com/>

10.2 How to reach Vancouver

10.2.1 By Air

Vancouver is easily accessible via the Vancouver International Airport ([YVR](#)) – a major international airport with direct flights from many places in Europe, Asia, and North America, arriving many times a day.

If you are considering flying into a different North American city and travelling by car to Vancouver, please keep in mind the potentially large distances between cities that may, at first, appear close in proximity. Canada is the second largest country in the world, spanning a distance of 9306 km from its most eastern point on the Atlantic coast to its most western point on the Pacific coast. The closest major Canadian city to Vancouver is Calgary, which is almost 1000 km away. The closest major American City is Seattle, which is about 225 km from Vancouver. However, driving from Seattle involves crossing a controlled border with line-ups often exceeding 2 hours. Please refer to the table below for travel distances to Vancouver by car from some major North American cities.

Distance to Vancouver		
From	Distance in km	Hours of Travel by Car
Calgary, Alberta	1000	10
Chicago, Illinois	3540	32
Los Angeles, California	2100	20
Montreal, Quebec	4900	45
Toronto, Ontario	4400	40
Seattle, Washington	225	3

10.2.1.1 From the Airport to the University of British Columbia Campus

The airport is located about 17 km away from the UBC campus. Travelling from the airport to UBC via public transit takes approximately 45-65 minutes depending on the time of day and the route selected, and will cost you approximately \$8. There are several options using the [SkyTrain](#) and then transferring to a bus. Your SkyTrain fare includes the bus transfer. The buses in Vancouver run regularly at various intervals, ranging from a few minutes to about 30 minutes, throughout the day. Most of the buses stop operating around 11:00 pm. The most convenient public transit routes are listed below. Your expected time of arrival at the airport will help you select the best bus route to take (<http://tripplanning.translink.ca/>).

SkyTrain and Bus 41 – Take the Canada Line SkyTrain from the airport stop (YVR-Airport Station Eastbound) in the direction of the Waterfront Station to the Oakridge-41st Street Station (approximately 14 minutes). From this station, walk to the bus stop for Bus 41 on 41st Avenue facing Cambie Street (about 5 minutes) and board Bus 41 towards UBC (approximately 25 minutes).

SkyTrain and Bus 49 – Take the Canada Line SkyTrain from the airport stop (YVR-Airport Station Eastbound) in the direction of the Waterfront Station to the Langara-49th Avenue Station (approximately 12 minutes). From this station, walk to the bus stop for Bus 49 on Cambie Street facing King Edward Avenue (approximately 5 minutes) and board Bus 49 towards UBC (approximately 24 minutes).

SkyTrain and Bus 33 – Take the Canada Line SkyTrain from the airport stop (YVR-Airport Station Eastbound) in the direction of the Waterfront Station to the King Edward Station (approximately 18 minutes). From this station, walk to the bus stop for Bus 49 on 49th Avenue facing Cambie Street (approximately 3 minutes) and board Bus 33 towards UBC (approximately 30 minutes).

SkyTrain and Bus 25 – Take the Canada Line SkyTrain from the airport stop (YVR-Airport Station Eastbound) in the direction of the Waterfront Station to the King Edward Station (approximately 18 minutes). From this station, walk to the bus stop for Bus 49 on King Edward

Avenue facing Cambie Street (approximately 3 minutes) and board Bus 25 towards UBC (approximately 25 minutes).

Taxi – Another option is to travel by taxi. Taxis are available at the airport 24 hours a day and do not require a reservation. The approximate cost of a taxi from the airport to the UBC campus is \$38-45. The trip takes about 25 minutes during non-peak traffic hours.

10.2.1.2 From the Airport to Downtown Vancouver

SkyTrain – The airport is located about 15 km from the downtown core of Vancouver. To travel from the airport to the downtown core of Vancouver via public transit, take the [Canada Line SkyTrain](#) from the airport stop (YVR-Airport Station Eastbound) in the direction of the Waterfront Station to the Vancouver City Center Station (11 stops). The approximate time of this trip is 25 minutes and will cost about \$8.

Taxi – Alternatively, you can hire a taxi to travel from the airport to downtown Vancouver. Taxis are available 24 hours a day and do not require a reservation. The approximate cost of a taxi from the airport to downtown Vancouver is \$35-40. The trip can take as little as 20 minutes but can take as much as 45 minutes, depending on traffic volume.

10.3 Getting Around in Vancouver

The city of Vancouver collaborates with Translink (<http://www.translink.ca/>) to provide an integrated and efficient public transportation system. A visitor's guide to Vancouver's public transit can be found at <http://vancouver.ca/streets-transportation/visitors-guide-to-public-transit.aspx>. From UBC to downtown Vancouver is a single fare costing \$2.75 and can be paid directly to the bus driver (with exact change only). FareSaver tickets can also be purchased in booklets of 10 tickets for \$21 at most food stores and pharmacies. For a list of FareDealers in the Vancouver area you can consult <http://www.translink.ca/en/Fares-and-Passes/Where-to-buy-FareDealer.aspx>. If you choose to explore other areas of the city, another alternative is to take a taxi. Vancouver has many different [taxi](#) companies for hire. The fares for a taxi may vary between different companies but the average rate is about \$3 for the first km and \$2 for each additional km.

10.4 About Canada

For general information about Canada please visit <http://www.canada.gc.ca/aboutcanada-ausujetcanada/tour/menu-eng.html>.

10.4.1 Language

Canada has two official languages, English and French, but throughout British Columbia and in Vancouver the majority of people speak English. The official language of the conference is English. There will be no simultaneous translations.

10.4.2 Passport and Visas

Citizens of all countries (**including the US**) require a passport to enter Canada. Citizens of some countries may require a visa to visit Canada. To consult a list of countries and territories whose citizens need a visa, please consult the Citizenship and Immigration Canada section of the Government of Canada website at <http://www.cic.gc.ca/english/visit/visas.asp>.

Alternatively, please contact the nearest Canadian Embassy or consulate for further details about the requirements and formalities of obtaining a visa.

If your visit to Canada requires a visa, please remember to apply for a visa in good time.

Those who need an official invitation in order to obtain a visa for entering Canada please read Section 10.4.3 *Letter of Invitation*.

PME 2014 cannot be held responsible for any matters related to obtaining visas.

10.4.3 Letter of Invitation

Delegates requiring a letter of invitation in order to attend the conference may write to the administrative secretariat 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 and other expenses and does not imply any financial support from the conference organizers.

10.4.4 Currency

The currency in Canada is the Canadian dollar (CAD/\$) and cent (¢). For exchange rates, please check the Bank of Canada website: <http://www.bankofcanada.ca/rates/exchange/daily-converter/>.

10.4.5 Electrical Appliances

If you are planning to bring electrical equipment (e.g. battery chargers, laptop power supply, etc.) with you, please check whether you need an adapter. The electrical supply is 110-120 volts and 60 hertz. The power outlets are designed for NEMA connectors - two, flat pronged plugs and grounded, flat pronged plugs.



10.4.6 Time Zone

In the summer, Vancouver is on Pacific Daylight Time (PDT), which is seven hours behind Greenwich Mean Time (GMT-7).

10.4.7 Canada Telephone Code

To call Vancouver, Canada, from outside of the local calling area, you must dial the international access code followed by a three-digit area code for Vancouver and the seven-digit phone number. The international access code for Canada is 1. The two area codes for Vancouver are 604 and 778. To call Vancouver from within the local calling area, you must dial the area code followed by the phone number. For example, to call the phone number 555-1234 in the 604 area code from outside the local calling area, you must dial 1-604-555-1234. To call the same number from within the local calling area you must dial 604-555-1234.

10.4.8 Shopping in Vancouver

Vancouver is a great city for shopping. The diverse neighborhoods in Vancouver provide venues for all categories of shopping. Below is a list of some of the most popular shopping locations in Vancouver.

Robson Street and Downtown Vancouver

This area is Vancouver's most famous shopping district. Robson Street is home to more than 200 clothing and accessory shops, book stores, coffee shops, restaurants, and various other services. See <http://www.robsonstreet.ca/> for more information.

Just off Robson Street, you can shop at the Pacific Centre Mall. This mall offers over 90 shops and services ranging from discount and outlet shops to designer and department stores. See www.pacificcentre.ca/ for more information.

About a block south, you can find many fine dining restaurants and high-end boutiques on Alberni Street between Burrard Street and Bute Street. This area is sometimes nicknamed Vancouver's [Mini Rodeo Drive](#).

Metropolis at Metrotown

A 15-minute SkyTrain ride from downtown Vancouver, you will find the largest mall in the province of British Columbia, the Metropolis at Metrotown. With almost 400 stores and services over three levels, you can shop at clothing boutiques, electronic stores, jewelry shops, and more. This mall also offers international and specialty foods, a movie theatre, and free parking. See <http://metropolisatmetrotown.com/> for more information.

Granville Island

Granville Island is an excellent place to shop for gifts and souvenirs with its wide variety of shops featuring handmade arts and crafts, First Nations art and collectibles, locally designed and made clothing and jewelry. It is an excellent place to experience Vancouver art and culture. Granville Island also features the Granville Island Farmer's Market, the Granville Island Brewery, Vancouver TheatreSports League improv comedy shows, art galleries, and street buskers. See <http://granvilleisland.com/> for more information.

Chinatown

Vancouver is home to North America's third largest Chinatown. This neighborhood is known for its cuisine and culture. In addition to dim sum and Chinese bakeries, you will also find many Chinese health food stores and variety shops here. Chinatown is also home to a summer night market.

See <http://vancouver-chinatown.com/> and <http://vancouverchinatownnightmarket.com/> for more information.

Punjabi Market

A lesser known shopping destination is the Punjabi Market, located on Main Street between 48th and 52nd Avenues, about 25 minutes south of downtown Vancouver. Although not formally a market, this six-block area showcases a unique collection of restaurants and stores, including jewelry stores, fabric shops, and clothing and accessory stores. This is a good area to find everything from high-end saris, to inexpensive gold and silk, to shoes and beaded handbags.

See <http://www.tourismvancouver.com/do/activities-attractions/attractions/punjabi-market-guide/> for more information.

10.5 Weather

Canada has a four-season climate and, given its vast size, the weather varies dramatically depending on your location in the country. Vancouver is one of the most temperate cities in Canada with relatively dry, warm summers and mild, rainy winters. In the summer, the temperature tends to be warm during the day and substantially cooler in evening. The following table shows the average high and low temperatures in Vancouver from June to August.

	June	July	August
Average High	19°C / 66°F	22°C / 71°F	22°C / 71°F
Average Low	11°C / 51°F	12°C / 54°F	13°C / 55°F
Average Temperature	15°C / 58.571°F	17°C / 62.5°F	17.5°C / 63°F

For an up-to-date forecast, please check the weather forecast before you leave for Vancouver at www.weather.com.

10.6 Liability and Insurance

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

11 Accommodations

11.1 On Campus Accommodations

We have arranged for a variety of accommodations to be reserved for PME 2014 on the UBC campus. These accommodations range from apartment style units with multiple bedrooms (\$46/night) to studio suites (\$129/night) to spacious hotel suites (\$169/night). Please read below for details about the available accommodations and prices. All of the rooms are non-smoking.

11.1.1 Stay from July 15 to July 21

Room bookings are done directly through the [University of British Columbia Conference and Accommodation Services](#). The conference centre is currently holding several hundred rooms for PME 2014 from July 15th to July 21st under a group code of **G140713B** at a discounted conference rate. To book a room at UBC with a check-in on or after July 15th and a check-out on or before July 21st please click [HERE](#).

11.1.2 Early arrival or late departure

There are also rooms available at UBC before July 15th or after July 21st. To book rooms outside of the July 15th to July 21st window, please contact UBC Accommodations Services directly at +604-822-1000 or toll free at +1-888-822-1030. This will ensure that they link your extended stay to your conference stay. This applies to YRD participants as well.

11.2 Room Types

11.2.1 Standard Single Room at Gage

Located at the Walter Gage Residence, a Gage Standard Single includes one of six single bedrooms sharing a lounge and a washroom. These rooms are for single occupancy only. The kitchen is equipped with a fridge, stove, coffee maker with Starbucks coffee, and a kettle. There is a LCD television in the shared lounge. This is the most economical choice at \$46/night and includes breakfast.



To book this type of room during the conference go directly [here](#) and click on the *Budget Rooms and Shared Apts* tab.

11.2.2 Premium Single Room at Gage

Similar to the Gage Standard Single, a Gage Premium Single is located at the Walter Gage Residence, and includes one of four single bedrooms sharing a lounge and a washroom. These rooms are for single occupancy only. The bedrooms and lounge are similar to the Gage Standard Single. The kitchen is equipped with a fridge, stove, coffee maker with Starbucks coffee, and a kettle. There is a LCD television in the shared lounge. The price for a Gage Premium Single is \$57/night and includes breakfast.



To book this type of room during the conference go directly [here](#) and click on the *Budget Rooms and Shared Appts* tab.

11.2.3 Single Room at Marine Drive

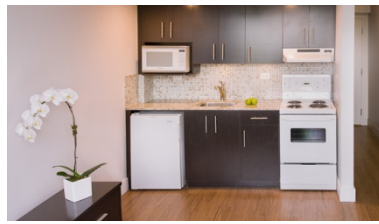
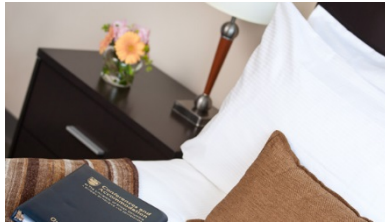
Marine Drive Single rooms are located at the Marine Drive Residence and include one of four single bedrooms with a shared lounge and washroom. The kitchen is equipped with a fridge, stove, coffee maker with Starbucks coffee, and a kettle. There is a LCD television in the shared lounge. The price for a Marine Drive Single is \$60/night and includes breakfast.



To book this type of room during the conference go directly [here](#) and click on the *Budget Rooms and Shared Appts* tab.

11.2.4 Studio Suite at Gage

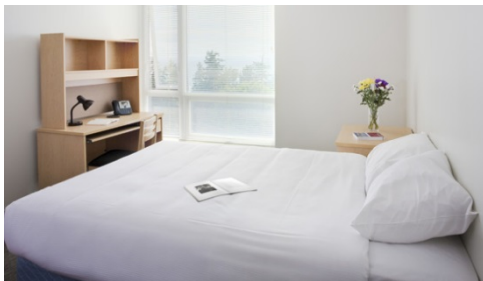
Located at the Walter Gage Residence, a Studio Double Bed Suite is a private studio apartment with a double bed with luxury linens, fully equipped kitchenette with Starbucks coffee, and bathroom. Ideal for single or double occupancy at \$129/night and includes breakfast.



To book this type of room during the conference go directly [here](#) and click on the *Standard Suites* tab.

11.2.5 Studio Suite at Marine Drive

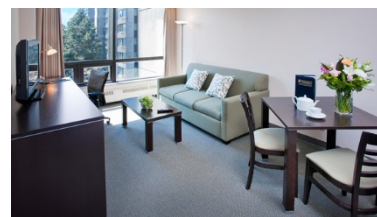
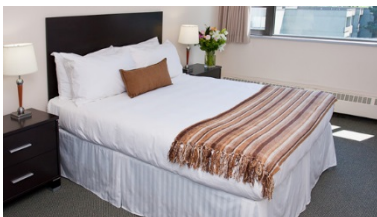
Located at the Marine Drive Residence, a Studio Double Bed Suite is a private studio apartment with a double bed with luxury linens, fully equipped kitchenette with Starbucks coffee, and bathroom. Ideal for single or double occupancy at \$129/night and includes breakfast.



To book this type of room during the conference go directly [here](#) and click on the *Standard Suites* tab.

11.2.6 One Bedroom Suite at Gage

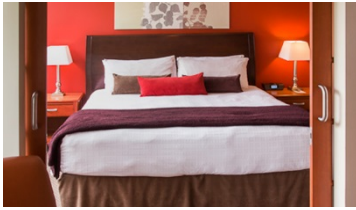
Located at the Walter Gage Residence, a One Bedroom Suite offers a queen bed in the bedroom with an additional pullout queen sofa bed in the living room, with luxury linens, fully equipped kitchenette with Starbucks coffee, and bathroom. The rate is \$159/night based on single or double occupancy and includes breakfast.



To book this type of room during the conference go directly [here](#) and click on the *Standard Suites* tab.

11.2.7 West Coast Suite

The West Coast Suites are one-bedroom, 450 square foot hotel suites fully equipped with a king or queen-size bed in the bedroom with luxury linens, a double sofa bed in the living room, kitchen with Starbucks coffee, in-room safe, and more. The rate is \$179/night based on single or double occupancy and includes breakfast.



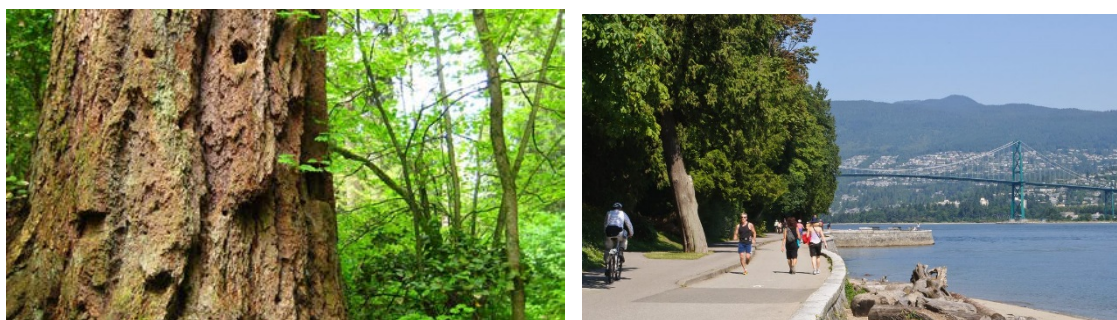
To book this type of room during the conference go directly [here](#) and click on the *West Coast Suite* tab.

12 Conference Excursions & Tours

In addition to the scientific program, we will prepare several excursions and tours. These are still in the process of being finalized and will be focused on activities and events that are available in the immediate Vancouver area. This will avoid long transportation times between the conference venue and the excursions. Some possible excursions are listed below. See <http://www.pme38.com/program/> for updated information.

12.1 Walking Tour of Stanley Park and the Sea Wall

Stanley Park is Vancouver's first and largest urban park. It is designated as a national historic site of Canada and boasts a 400-hectare, natural, West Coast rainforest. Stanley Park is the perfect place to enjoy scenic views of beaches, the sea, majestic trees, and monuments, while strolling along the trails and the famous Stanley Park Seawall. Stanley Park is about 13 km from the UBC campus. <http://vancouver.ca/parks-recreation-culture/stanley-park.aspx>.



12.2 Shopping and Walking Tour of Granville Island

In the early 1900s, Granville Island was an industrial center. Today, Granville Island is very different. It is a favorite among locals and tourists as a Vancouver art and cultural hotspot. Centered around a public market, Granville Island features fresh produce, gourmet foods and baked goods, and various other commercial vendors. There is also plenty of entertainment in the form of shopping, exploring heritage sites, theatre, and more. Granville Island is about 10 km from the UBC campus. <http://granvilleisland.com/>



12.3 Dr. Sun Yat-Sen Classical Chinese Garden and Chinatown Tour

The Dr. Sun Yet-Sen Classical Chinese Garden was built in the mid-1980s using principles and techniques of the original Ming Dynasty garden as a means of enhancing understanding between Chinese and Western cultures and promoting Chinese culture as an integral part of the Vancouver community. Known as the Garden of Ease, a visit to the garden provides you with the time to relax, reflect, and enjoy the beautiful botany and architecture. The Dr. Sun Yat-Sen Classical Chinese Garden is located about 13 km from the UBC campus.

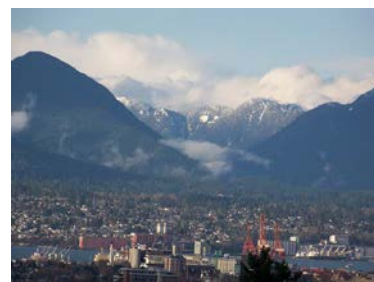
<http://vancouverchinesegarden.com/>



12.4 Queen Elizabeth Park and Arboretum Tour

Queen Elizabeth Park is located at the highest point of the city of Vancouver at 152 meters above sea level. It is a beautifully landscaped quarry garden and arboretum with a collection of exotic and native trees and plants. Queen Elizabeth Park is a great destination for spectacular views of the park, the city, and the mountains of the North Shore of Vancouver, and is located about 12 km from the UBC campus.

<http://vancouver.ca/parks-recreation-culture/queen-elizabeth-park.aspx>



12.5 Steveston Village

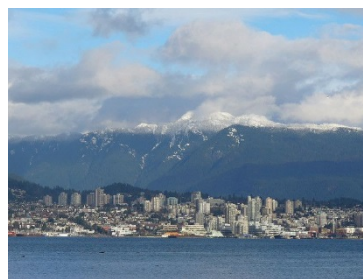
Steveston is a historic fishing village and popular tourist destination. There are many things to do in Steveston, including touring the eclectic shops, dining on fresh wild-caught seafood, and exploring historic sites and buildings, such as the Gulf of Georgia Cannery, Britannia Heritage Shipyards National Historic Site, and London Heritage Farm. Steveston is also a regular filming location for ABC's television series "Once Upon a Time." This tourist village is located about 22 km from the UBC campus.

<http://www.steveston.bc.ca/> and <http://www.britannia-hss.ca/>



12.6 Grouse Mountain

Grouse Mountain is Vancouver's most visited attraction. As a four-season resort that offers a variety of activities from posh dining to hiking, there is something to do for everyone at Grouse Mountain. Located about 23 km from the UBC campus, Grouse Mountain provides amazing views of the city of Vancouver, the sea, and the surrounding mountains. In addition to the SkyRide, Grouse Mountain is also home to the Grouse Grind, a hike locally known as “nature's stair climber”, a wildlife refuge with grizzly bears and a timber wolf habitat, mountain ziplines, and a variety of shows and programs. www.grousemountain.com/.



12.7 Capilano Suspension Bridge

The Capilano Suspension Bridge is located in North Vancouver, about 20 km away from the UBC campus. The bridge is 450 feet long and is suspended 230 feet above the Capilano River. The bridge and surrounding park provide visitors with an opportunity to enjoy a walking tour of a temperate rain forest from a unique perspective. In addition to the bridge, the park also offers a cantilevered walkway along the granite cliffs of the Capilano Canyon. www.capbridge.com/.



12.8 Van Dusen Gardens

The Van Dusen Botanical Garden is a 55-acre public garden. It is essentially a living museum, featuring a wide variety of landscapes and plants, representing various ecosystems, including the Pacific Northwest, the Mediterranean, Louisiana swamps, and the Himalayas. The Van Dusen Garden also features a sculpture collection and hosts various special events. It is located less than 9 km from the UBC campus. <http://vandusengarden.org/>



12.9 Museum of Anthropology

Located on the University of British Columbia (UBC) campus, the Museum of Anthropology is a world-renowned public and research institute that stands out for its extensive collection of unique artworks and artifacts from British Columbia. As a place of world art and culture, the museum houses an eclectic collection of ethnographic and archeological objects from around the world. The Museum of Anthropology's First Nations' collection also features an iconic sculpture, *The Raven and the First People*, by First Nations artist Bill Reid, which appears on the back of the Canadian twenty-dollar bill. <http://moa.ubc.ca/>



13 Credits

13.1 Front Cover Salmon Design

Billy NC Yovanovich Jr., Haida name Kuuhlanuu, of the Ts'aahl Eagle Clan Skidegate Haida Gwaii, British Columbia.

13.2 PME 2014 First Announcement Graphic Designer

Kirsty Robbins, Art Technician, Department of Curriculum and Pedagogy, University of British Columbia.

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