

Québec – Nature and Culture



Québec City is located in the East of Canada at the St. Lawrence River. The town can be seen as the cradle of the French civilization in North America. In 1985 the UNESCO declared the historical city of Québec a world cultural heritage.

During the time of the conference you will enjoy the world famous Indian summer in Québec. Maple leaves in red, orange and yellow will show you a symphony of colors. The region around Québec is ideal for many outdoor activities like biking, golf or hiking.



Information for Authors

To show your interest in presenting your work a one-page abstract should be submitted via the on-line submission system available on the conference webpage. Authors of accepted abstracts will be asked to submit a full paper. At least one of the authors should present the paper at the conference. All accepted papers will be published in the conference proceedings.

Post-Conference publication

A selection of conference papers will be published in a special issue of Chemical Engineering Science.

Website

www.modelEAU.org/PBM2007

The website contains many services concerning the conference:

- On-line paper submission system
- Full paper templates in Word and TeX
- Accommodation information
- Registration for newsletter
- Online conference registration
- Contact information

Important Dates

Submission of abstracts: 15.12.2006

Notification of acceptance: 16.3.2007

Submission of final papers: 29.6.2007

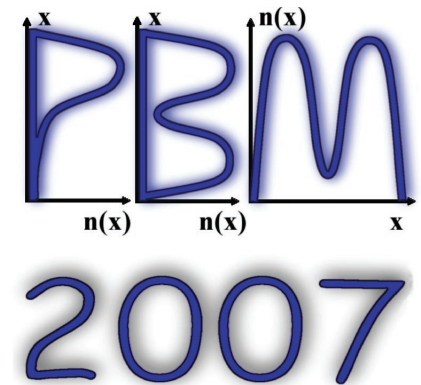
Conference: 19.-21.9.2007

Registration Fees

Student	395 €
Student (early registration)	345 €
Full	595 €
Full (early registration)	495 €

Call for Abstracts

3rd International Conference on Population Balance Modeling



Québec City, Canada
September 19-21
2007



Conference Goal

The great success of the first and second International Conference on Population Balance Modeling in Kona (Hawaii, 2000) and Valencia (Spain, 2004), respectively, has stimulated the continuation of this conference series. The high quality of the conference contributions is convincingly documented in the two special issues of Chemical Engineering Science (Vol. 57(12), 2002; Vol 61(1), 2006), which have appeared after the previous meetings.

One major reason for the popularity of population balance modeling is its applicability to a great variety of different problems. Mining, wastewater treatment, nanoparticle generation, or classically crystallization are only a few examples. This variety in applications, however, has the disadvantage that researchers on population balance topics are often mainly associated with the corresponding scientific communities. The primary goal of this conference is to overcome this lack of interaction between the different disciplines. Putting the rich methodological framework of population balance modeling in the very center of interest, this conference allows to exchange ideas across traditional boundaries and to identify common problems and solution approaches.

The 3rd International Conference on Population Balance Modeling (PBM) aims to bring together the leading researchers and practitioners with a range of different backgrounds in order to assess the current status in the field and to discuss the future challenges for population balance modeling.

We are looking forward to welcome you in Québec.

The organizing committee

Conference Format

There will be one plenary lecture per day, followed by presentations in one single session. Posters will be accessible throughout the whole conference and can be discussed during the coffee breaks.

The meeting will be hosted by Université Laval in Québec City (Canada).

Scientific Program

Paper submission is encouraged for but not limited to the following topics

1. Formulation and Identification of Population Balance Models

- Momentum and energy balances coupled with PBM
- Population balances for systems with more than one internal coordinate
- Structure and size modeling
- Parameter estimation and inverse problems
- Stochastic population balances

2. Computational Methods for and Solution of Population Balance Equations

- Calculation of unimodal, bimodal and multimodal distributions
- CFD / DEM coupling with PBM
- General PBM solution methodologies and solution methods for bi-variate and tri-variate PBEs

3. Optimization and Control of Particulate Systems using Population Balances

- Dynamic optimization and model-based and distributed control
- On-line monitoring of PSDs and DSDs
- Measurements in nano- and micro-scales
- Nonlinear dynamics of particulate systems using PBMs

4. Applications of Population Balances

- Application of PBE to biological and environmental systems
- Application of PBE to nanoparticles and nanoprocesses
- Application of PBE to particulate polymerization processes
- Hydrodynamic effects and emulsification
- Industrial applications

5. Computer-Aided Studies of Particulate Systems

- Computer simulation at individual unit operation level
- Computer simulation of industrial circuits
- Computer simulation of interaction of single or pairs of particles
- Visualization of PBM results

6. Experimental Techniques for Population Balance Systems

- Reconstruction of PSDs based on spectroscopic data
- Sampling and measurement techniques
- Statistical analysis of experimental data

Scientific Committee

- **Bart, Hans-Jörg** University of Kaiserslautern (Germany)
- **Briesen, Heiko** RWTH Aachen University (Germany)
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- **Ducoste, Joel** (Chair of SC) North Carolina State University (USA)
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- **Vanrolleghem, Peter** Université Laval (Canada)

Organizing Committee

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