

Centre de recherches mathématiques
Université de Montréal

Les 4ièmes journées montréalaises de calcul scientifique
Du 16 au 17 avril 2007

The 4th Montreal Science Computing Days
April 16-17, 2007

HORAIRE / PROGRAM

Le lundi 16 avril 2007 / *Monday, April 16, 2007*

08:30 - 08:50 Inscription et Café / *Registration and Coffee*

08:50 - 09:00 Mots de bienvenue / *Welcoming addresses*

09:00 - 10:30 **Donald Estep** (Colorado State University)

“Duality, Adjoint Operators, and Uncertainty in a Complex World”

10:30 - 11:00 Café / *Coffee*

11:00 - 11:20 **David Titley-Peloquin** (McGill University)

“Backward perturbation analysis for the scaled total least squares problem”

11:20 - 11:40 **Xiaoli Zhu** (Carleton University)

“Probabilistic uncertainty analysis: Parallel Computing Aspect”

11:40 - 12:00 **Miguel Angel Moyers-Gonzalez** (Université de Montréal)

“Modelling and numerical simulation of blood flow, non-homogeneous tube flow”

12:00 - 12:20 **ChunYan Liu** (École Polytechnique de Montréal)

“Adjoint-based error estimation for the front-tracking method”

12:30 - 14:00 Pause déjeuner / *Lunch Break*

14:00 - 15:30 **Christoph Schwab** (ETHZ)

“Numerical Methods for Operator Equations in High Dimensions”

15:30 - 16:00 Pause-café / *Coffee break*

16:00 - 16:20 **Olivier Soucy** (McGill University)

“Sonic boom minimization using remote inverse design”

16:20 - 16:40 **Xiaogang Wang** (Université de Montréal)

“A quantum full dimensional calculation of vibrational levels of CH_5^+ ”

16:40 - 17:00 **Shinnosuke Kawai** (Université de Sherbrooke)

“Normal form approach for laser-driven chemical reactions”

17:00 Réception et session d'affiches (6245, Pavillon Aisenstadt Building) / *Reception and Poster Session (6245, Pavillon Aisenstadt Building)*

Le mardi 17 avril 2007 / *Tuesday, April 17, 2007*

08:30 Café / *Coffee*

09:00 - 10:30 **Donald Estep** (Colorado State University)
“Duality, Adjoint Operators, and Uncertainty in a Complex World II”

10:30 - 11:00 Pause-café / *Coffee break*

11:00 - 12:30 **Christoph Schwab** (ETHZ)
“Numerical Methods for Operator Equations in High Dimensions II”

12:30 - 14:00 Pause déjeuner / *Lunch Break*

14:00 - 14:20 **Christos Boutsidis** (Rensselaer Polytechnic Institute)
“A randomized algorithm for rank revealing QR factorizations and applications”

14:20 - 14:40 **Mohammad Khalil** (Carleton University)
“Linear system identification using proper orthogonal decomposition”

14:40 - 15:00 **Waad Subber** (Carleton University)
“Parallel time integration: Application to stochastic dynamics”

15:00 - 15:20 **Olivier Rousseau** (Université d’Ottawa)
“An iterative active contours algorithm applied to heart segmentation”

15:30 - 15:45 Prix et conclusion / *Prize giving and conclusion*