

Centre de recherches mathématiques
Université de Montréal

Atelier sur les équations géométriques d'évolution
Du 16 au 27 avril 2008

Workshop on Geometric Evolution Equations
April 16-27, 2008

HORAIRE / *PROGRAM*

Conférences : salle 6214
Pauses-café : salle 6245

Lectures: Room 6214
Coffee Breaks: Room 6245

Le mercredi 16 avril 2008 / *Wednesday, April 16, 2008*

09:00 Inscription (5345) et café-croissant (6245) / *Registration (5345) and Coffee & Croissant (6245)*

10:00 - 11:00 **Jingyi Chen** (The University of British Columbia)
"A priori estimate for convex solutions to special Lagrangian equations"

11:00 - 11:30 Pause-café / *Coffee break*
(Salle / *Room* 6245)

11:30 - 12:30 **Artem Pulemotov** (Cornell University)
"The Li-Yau-Hamilton estimate and the Yang-Mills heat equation"

12:30 - 14:30 Pause déjeuner / *Lunch break*

14:30 - 15:30 **Spiro Karigiannis** (University of Oxford)
"Flows of G_2 Structures"

15:30 - 16:00 Pause-café / *Coffee break*
(Salle / *Room* 6245)

16:00 - 17:00 **Bo Guan** (Ohio State University)
"À venir"
"TBA"

Le jeudi 17 avril 2008 / *Thursday, April 17, 2008*

09:00 - 10:00 Inscription (5345) et café-croissant (6245) / *Registration (5345) and Coffee & Croissant (6245)*

10:00 - 11:00 **Xiuxiong Chen** (University of Wisconsin-Madison)

“À venir”

“TBA”

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

(Salle / *Room* 6245)

11:30 - 12:30 **Julien Keller** (Université de Provence Aix-Marseille 1)

“*Ricci balanced metrics*”

12:30 - 14:30 Pause déjeuner / *Lunch break*

14:30 - 15:30 **Gábor Székelyhidi** (Imperial College)

“*The Kähler-Ricci flow and K-polystability*”

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

(Salle / *Room* 6245)

16:00 - 17:00 **Jacob Sturm** (Rutgers University)

“*Geodesics in the space of Kähler metrics*”

Le vendredi 18 avril 2008 / *Friday, April 18, 2008*

09:00 Inscription (5345) et café-croissant (6245) / *Registration (5345) and Coffee & Croissant (6245)*

10:00 - 11:00 **Xiuxiong Chen** (University of Wisconsin-Madison)
 “À venir”
 “TBA”

11:00 - 11:30 Pause-café / *Coffee break*
 (Salle / *Room* 6245)

11:30 - 12:30 **Nassif Ghoussoub** (University of British Columbia)
 “*Navier-Stokes evolutions as selfdual variational problems*”

12:30 - 14:30 Pause déjeuner / *Lunch break*

Session - *Colloque CRM-ISM Colloquium*

14:30 - 15:30 **Rafe Mazzeo** (Stanford University)
 “*Flexibility of singular Einstein metrics*”

15:30 - 16:00 Pause-café (6245) / *Coffee break (6245)*

Session - *Chaire Aisenstadt Chair*

16:00 - 17:00 **Gerhard Huisken** (Universität Tübingen)
 “*Geometric variational problems in General Relativity*”

17:00 Cocktail (6245) / *Reception (6245)*

Le samedi 19 avril 2008 / *Saturday, April 19, 2008*

09:00 - 10:00 Inscription (5345) et café-croissant (6245) / *Registration (5345) and Coffee & Croissant (6245)*

10:00 - 11:00 **Xiuxiong Chen** (University of Wisconsin-Madison)

“À venir”

“TBA”

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

(Salle / *Room* 6245)

11:30 - 12:30 **Albert Chau** (University of British Columbia)

“À venir”

“TBA”

12:30 - 14:30 Pause déjeuner / *Lunch break*

14:30 - 15:30 **Robert McCann** (University of Toronto)

“À venir”

“TBA”

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

(Salle / *Room* 6245)

Le lundi 21 avril 2008 / Monday, April 21, 2008

09:00 Inscription (5345) et café-croissant (6245) / *Registration (5345) and Coffee & Croissant (6245)*

10:00 - 11:00 **Gerhard Huisken** (Universität Tübingen)
“Mean curvature flow and isoperimetric inequalities”

11:00 - 11:30 Pause-café / *Coffee break*
(Salle / *Room* 6245)

11:30 - 12:30 **Esther Cabezas-Rivas** (University of Warwick)
“Volume-preserving Mean Curvature Flow in the Hyperbolic Space (and beyond)”

12:30 - 14:30 Pause déjeuner / *Lunch break*

14:30 - 15:30 **Valentino Tosatti** (Harvard University)
“The Calabi-Yau equation on symplectic manifolds”

15:30 - 16:00 Pause-café / *Coffee break*
(Salle / *Room* 6245)

16:00 - 17:00 **Ben Weinkove** (Harvard University)
“The Kahler-Ricci flow on Fano manifolds”

Le mardi 22 avril 2008 / *Tuesday, April 22, 2008*

09:00 Inscription (5345) et café-croissant (6245) / *Registration (5345) and Coffee & Croissant (6245)*

10:00 - 11:00 **Gerhard Huisken** (Universität Tübingen)
"Inverse mean curvature flow"

11:00 - 11:30 Pause-café / *Coffee break*
(Salle / *Room* 6245)

11:30 - 12:30 **Xiaohua Zhu** (Peking University)
"Perelman's W-function and stability of Kähler-Ricci flow"

12:30 - 14:30 Pause déjeuner / *Lunch break*

14:30 - 15:30 **Brian Weber** (SUNY Stony Brook)
"Compactness of spaces of compact Ricci solitons"

15:30 - 16:00 Pause-café / *Coffee break*
(Salle / *Room* 6245)

16:00 - 17:00 **Li Ma** (Tsinghua University)
"Ricci flow and physical quantities"

Le mercredi 23 avril 2008 / Wednesday, April 23, 2008

09:00 Inscription (5345) et café-croissant (6245) / *Registration (5345) and Coffee & Croissant (6245)*

10:00 - 11:00 **Burkhard Wilking** (Mathematisches Institut der Uni Münster)
“*New convergence results for the Ricci flow I*
(Evolution of geometric quantities under the Ricci flow and Hamilton’s maximum principle.)”

11:00 - 11:30 Pause-café / *Coffee break*
(Salle / *Room* 6245)

11:30 - 12:30 **Gerhard Huisken** (Universität Tübingen)
“*An isoperimetric concept for the mass in General Relativity*”

12:30 - 14:30 Pause déjeuner / *Lunch break*

14:30 - 15:30 **Xiaodong Cao** (Cornell University)
“*À venir*”
“*TBA*”

15:30 - 16:00 Pause-café / *Coffee break*
(Salle / *Room* 6245)

16:00 - 17:00 **Lei Ni** (University of California, San Diego)
“*Gradient shrinking solitons*”

Le jeudi 24 avril 2008 / *Thursday, April 24, 2008*

09:00 - 10:00 Inscription (5345) et café-croissant (6245) / *Registration (5345) and Coffee & Croissant (6245)*

10:00 - 11:00 **McKenzie Y. Wang** (McMaster University)
“A Cohomogeneity One framework for Ricci Solitons”

11:00 - 11:30 Pause-café / *Coffee break*
(Salle / *Room* 6245)

11:30 - 12:30 **Burkhard Wilking** (Mathematisches Institut der Uni Münster)
*“New convergence results for the Ricci flow II
(Pinching families and three manifolds with positive Ricci curvature.)”*

12:30 - 14:30 Pause déjeuner / *Lunch break*

14:30 - 15:30 **Maung Min-Oo** (McMaster University)
“Evolution of Cartan connections”

15:30 - 16:00 Pause-café / *Coffee break*
(Salle / *Room* 6245)

16:00 - 17:00 **Eric Woolgar** (University of Alberta)
“Ricci flow problems arising in and from physic”

Le vendredi 25 avril 2008 / *Friday, April 25, 2008*

09:00 - 10:00 Inscription (5345) et café-croissant / *Registration (5345) and Coffee & Croissants*

10:00 - 11:00 **Burkhard Wilking** (Mathematisches Institut der Uni Münster)

“New convergence results for the Ricci flow III

(Convergence results for the Ricci flow in high dimensions.)”

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

(Salle / Room 6245)

11:30 - 12:30 **Lei Ni** (University of California, San Diego)

“Li-Yau-Hamilton inequalities and applications”

12:30 - 14:30 Pause déjeuner / *Lunch break*

14:30 - 15:30 **Mu-Tao Wang** (Columbia University)

“Hamiltonian formulation of general relativity and quasilocal mass”

15:30 - 16:00 Pause-café (6245) / *Coffee break (6245)*

Session - *Colloque CRM-ISM Colloquium*

16:00 - 17:00 **Burkhard Wilking** (Mathematisches Institut der Uni Münster)

“New Ricci flow invariant curvature conditions and applications”

17:00 Cocktail (6245) / *Reception (6245)*

Le samedi 26 avril 2008 / *Saturday, April 26, 2008*

09:00 Inscription (5345) et café-croissant (6245) / *Registration (5345) and Coffee & Croissant (6245)*

10:00 - 11:00 **Weiyong He** (University of British Columbia)
“The singularities along the mean curvature flow”

11:00 - 11:30 Pause-café / *Coffee break*
(Salle / *Room* 6245)

11:30 - 12:30 **Natasa Sesum** (Columbia University)
“À venir”
“TBA”