

Centre de recherches mathématiques
Université de Montréal

Atelier sur les singularités, flots hamiltoniens et gradients
Du 12 au 16 mai 2008

Workshop on Singularities, Hamiltonian and gradient flows
May 12-16, 2008

HORAIRE / *PROGRAM*

Conférences : salle 6214
Pauses-café : salle 6245

Lectures: Room 6214
Coffee Breaks: Room 6245

Le lundi 12 mai 2008 / *Monday, May 12, 2008*

08:15 - 09:00 Inscription (5345) et café-croissants (6245) / *Registration (5345) and Coffee & Croissants (6245)*

08:45 - 09:00 Mots de bienvenue / *Welcoming addresses*

09:00 - 09:50 **Jean-Christophe Yoccoz** (Collège de France)
“Affine interval maps”

10:00 - 10:50 **Hidekazu Ito** (Kanazawa University)
“Non-resonant phenomena in resonant integrable systems”

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

11:30 - 12:20 **Bernold Fiedler** (Freie Universität Berlin)
“Design of planar global attractors of Sturm type”

12:30 - 14:00 Déjeuner (6245) / *Lunch (6245)*

14:00 - 14:50 **Andrey Sarychev** (Università degli Studi di Firenze)
“Controllability and optimal control of multiparticle system: geometric approach”

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

15:30 - 16:20 **Alexander Shnirelman** (Concordia University)
“À venir”
“TBA”

Le mardi 13 mai 2008 / *Tuesday, May 13, 2008*

08:30 - 09:00 Café croissants / *Coffee & Croissants*

09:00 - 09:50 **JianSheng Geng** (McMaster University)

“Invariant Tori of Full Dimension for a Nonlinear Schrödinger Equation”

10:00 - 10:50 **Laurent Stolovitch** (Université Paul Sabatier)

“Problème de Rigidité pour les perturbations de champs de vecteurs quasi-homogènes”
“Normal form of analytic perturbations of quasihomogeneous vector fields: rigidity problems”

11:00 - 11:30 Pause déjeuner / *Lunch break*

(Salle / *Room* 6245)

11:30 - 12:20 **Hakan Eliasson** (Université Paris VII)

“The Quasi-periodic Schrödinger Equation and Dynamical Localization”

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

14:00 - 14:50 **Freddy Dumortier** (Universiteit Hasselt)

“Canard cycles with different fast layers”

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

(Salle / *Room* 6245)

15:30 - 16:20 **Vadim Kaloshin** (University of Maryland)

“Hausdorff dimension of oscillatory motions”

(Cette conférence s'adresse à un large auditoire)

(Suitable for a general audience)

Le mercredi 14 mai 2008 / *Wednesday, May 14, 2008*

08:00 - 08:30 Café croissants (6245) / *Coffee & Croissants (6245)*

08:30 - 09:20 **Susanna Terracini** (Università di Milano Bicocca)
“Singularities and collisions of generalized solutions to the N-body problem”

09:30 - 10:20 **Clarence Eugene Wayne** (Boston University)
“Counterpropagating Two-soliton Solutions for the Fermi-Pasta-Ulam Model”

10:30 - 11:00 Pause-café / *Coffee break*
(Salle / *Room* 6245)

11:00 - 11:50 **Markus Keel** (University of Minnesota)
“A Monotonicity Formula Approach for Higher Dimensional Hyperbolic PDE”

11:50 - 12:50 **Christiane Rousseau** (Université de Montréal)
“The space of modules of unfoldings of germs of generic diffeomorphisms with a parabolic point”

12:30 Pause-déjeuner et après-midi libre / *Lunch Break and Free Afternoon*

Le jeudi 15 mai 2008 / Thursday, May 15, 2008

08:30 - 09:00 Café croissants (6245) / *Coffee & Croissants (6245)*

09:00 - 09:50 **Michael Bialy** (Tel Aviv University)
“On periodic solutions for reductions of Benney chain”

10:00 - 10:50 **Dario Bambusi** (Università degli studi di Milano)
“Birkhoff normal form and almost global existence for Hamiltonian PDEs”

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

11:30 - 12:20 **Vadim Kaloshin** (University of Maryland)
“Large dimensional nearly-integrable Hamiltonian systems exhibiting Arnold diffusion”

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

14:00 - 14:50 **Reinhard Schäfke** (Université Louis Pasteur)
“On some problems of construction of analytic functions”

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

15:30 - 16:20 **Vassili Gelfreich** (University of Warwick)
“Drift of slow variables in slow-fast Hamiltonian systems”

Le vendredi 16 mai 2008 / *Friday, May 16, 2008*

08:00 - 08:30 Café croissants (6245) / *Coffee & Croissants (6245)*

08:30 - 09:20 **Kuo-Chang Chen** (National Tsing Hua University)
“Existence and minimization property of some satellite orbits for the restricted n-body problem”

09:30 - 10:20 **Denis G. Gaydashev** (Université de Montréal)
“Renormalization and Universality for Hamiltonian Flows”

10:30 - 11:00 Pause-café / *Coffee break*
(Salle / *Room* 6245)

11:00 - 11:50 **Peter De Maesschalck** (Universiteit Hasselt)
“Gevrey and analytic local models for families of vector fields”

12:00 - 12:50 **Walter Craig** (McMaster University)
“Bounds on Kolmogorov Spectra for the Navier-Stokes Equations”