

Centre de recherches mathématiques
Université de Montréal

Atelier «Biodiversité et environnement :
perspectives de la théorie de la viabilité et des jeux dynamiques»
Du 4 au 8 novembre 2013

*Workshop on Biodiversity and Environment:
Viability and Dynamic Games Perspectives
November 4-8, 2013*

HORAIRE / PROGRAM

Conférences : salle 6214 (Pavillon André-Aisenstadt)

Pauses-café : salon Maurice-L'Abbé (salle 6245, Pavillon André-Aisenstadt)

Lectures: Room 6214 (Pavillon André-Aisenstadt)

Coffee Breaks: Salon Maurice-L'Abbé (Room 6245, Pavillon André-Aisenstadt)

Le lundi 4 novembre 2013 / *Monday, November 4, 2013*

08:30 - 08:50 Inscription (salle 5345) et café-croissants (salle 6245)

Registration (Room 5345) and Coffee & Croissants (Room 6245)

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

Chaire Aisenstadt Chair

09:00 - 10:00 **Martin A. Nowak** (Harvard University)

“Evolution of eusociality”

10:00 - 10:40 **Vlastimil Krivan** (Institute of Entomology Biology Centre ASCR)

“Population dynamics, evolutionary games, and biodiversity”

10:40 - 11:00 Pause-café / *Coffee break*

(Salle / Room 6245)

11:00 - 11:40 **Alain Haurie** (Université de Genève)

“A cost effectiveness differential game model for climate agreements”

11:40 - 12:20 **Jean-Baptiste André** (Université Pierre et Marie Curie)

“On the evolutionary origin of reciprocal cooperation”

12:20 - 13:40 Déjeuner / *Lunch*

(Salle / Room 6245)

13:40 - 14:20 **Pierre Bernhard** (INRIA-Sophia Antipolis-Méditerranée)

“Games of sexual selection: static and dynamic aspects”

14:20 - 15:00 **Georges Zaccour** (HEC Montréal)

“A differential game of international pollution control with evolving environmental costs”

15:00 - 15:20 Pause-café / *Coffee break*

(Salle / Room 6245)

15:20 - 15:40 **Yu-Ting Chen** (Université de Montréal)

“Sharp benefit-to-cost rules for the evolution of cooperation on regular graphs”

15:40 - 16:00 **Philipp Altrock** (Dana-Farber Cancer Institute)

“The evolution of strategic timing in collective-risk dilemmas”

16:00 - 16:40 **Hassan Bencheikroun** (McGill University)

“On the effects of mergers on equilibrium outcomes in a common property renewable asset oligopoly”

16:45 Cocktail / *Reception*

(Salle / Room 6245)

Le mardi 5 novembre 2013 / *Tuesday, November 5, 2013*

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- 09:00 - 09:20** Café croissants / *Coffee & Croissants*
(Salle / Room 6245)
- 09:20 - 10:00** **Ross Cressman** (Wilfrid Laurier University)
“Conforming and reactive behavior in the public goods game with institutional incentives to cooperate”
- 10:00 - 10:40** **Michel De Lara** (École des Ponts ParisTech)
“Control theory and viability methods for the sustainable management of natural resources”
- 10:40 - 11:00** Pause-café / *Coffee break*
(Salle / Room 6245)
- 11:00 - 11:40** **Luc Doyen** (CNRS)
“Viable coalitions in the commons”
- 11:40 - 12:20** **Marie-Hélène Durand** (GRED)
“Dynamic decentralization of constraints, application to management of exploited resources”
- 12:20 - 13:40** Déjeuner / *Lunch*
(Salle / Room 6245)
- 13:40 - 14:20** **Peter Hammerstein** (Humboldt University zu Berlin)
“Cooperation and exploitation in symbiosis”
- 14:20 - 14:40** **Man Wah Cheung** (University of Wisconsin-Madison)
“Pairwise comparison dynamics for games with continuous strategy space”
- 14:40 - 15:00** **Peter Bednarik** (University of Goettingen)
“The evolution of sanctioning institutions: an experimental approach to the social contract”
- 15:00 - 15:20** Pause-café / *Coffee break*
(Salle / Room 6245)
- 15:20 - 16:00** **Christoph Hauert** (The University of British Columbia)
“Honour, shame and climate change - Lessons from public goods experiments”

Le mercredi 6 novembre 2013 / *Wednesday, November 6, 2013*

09:00 - 09:20 Café croissants / *Coffee & Croissants*
(Salle / Room 6245)

09:20 - 10:00 **Benjamin Allen** (Harvard University)
“Mathematically general approaches to the evolution of cooperation”

10:00 - 10:40 **Jacek Bogdan Krawczyk** (Victoria University of Wellington)
“Computation of viability kernels: a case study of by-catch fisheries”

10:40 - 11:00 Pause-café / *Coffee break*
(Salle / Room 6245)

11:00 - 11:40 **Jorge Navas Rodenes** (Universitat de Barcelona)
“Common access resource games with asymmetric players”

11:40 - 12:20 **Jesús Marín-Solano** (Universitat de Barcelona)
“On the sustainability of cooperation in games with heterogeneous agents: two economic applications”

12:20 Après-midi libre / *Free afternoon*

Grande Conférence du CRM (Salle / Room S1-151, Pavillon Jean-Coutu)

19:30 - 20:30 **Martin A. Nowak** (Harvard University)
“The evolution of cooperation: why we need each other to succeed”

20:30 *Vin d'honneur*

Le jeudi 7 novembre 2013 / *Thursday, November 7, 2013*

09:00 - 09:20 Café croissants / *Coffee & Croissants*
(Salle / Room 6245)

09:20 - 10:00 **Jorge M. Pacheco** (Universidade do Minho)
“Avoiding catastrophic climate change: The public goods game we cannot afford to lose”

10:00 - 10:40 **Kristan Schneider** (Hochschule Mittweida)
“Intraspecific competition - combining population genetics, game theory and adaptive dynamics”

10:40 - 11:00 Pause-café / *Coffee break*
(Salle / Room 6245)

11:00 - 11:40 **Katheline Schubert** (Université de Paris 1 Panthéon-Sorbonne)
“Is aquaculture really an option?”

Chaire Aisenstadt Chair

11:40 - 12:20 **Martin A. Nowak** (Harvard University)
“Evolutionary Dynamics”

12:20 - 14:00 Déjeuner et Session d'affiches / *Lunch and Poster Session*
(Salle / Room 6245)

14:00 - 14:40 **Mabel Tidball** (Université de Montpellier I)
“Dynamic management of water transfer between two interconnected river basins”

14:40 - 15:00 **Christopher Bauch** (University of Guelph)
“The role of social learning and evolutionary games in vaccine scares”

15:00 - 15:20 Pause-café / *Coffee break*
(Salle / Room 6245)

15:20 - 16:00 **Arne Traulsen** (Max Planck Institute)
“Biodiversity arising from evolutionary games between mutants”

Le vendredi 8 novembre 2013 / *Friday, November 8, 2013*

09:00 - 09:20 Café croissants / *Coffee & Croissants*
(Salle / Room 6245)

09:20 - 10:00 **Ngo Van Long** (McGill University)
“When are increases in risk beneficial to the environment? Implications of strategic behaviour”

10:00 - 10:40 **Matthijs van Veelen** (Universiteit van Amsterdam)
“A simple model of group selection that cannot be analyzed with inclusive fitness”

10:40 - 11:00 Pause-café / *Coffee break*
(Salle / Room 6245)

11:00 - 11:40 **Bernhard Voelkl** (University of Oxford)
“Generalized reciprocity in spatially structured populations”

11:40 - 12:20 **Geoff Wild** (The University of Western Ontario)
“Emergence of cooperative breeding with benefits of natal philopatry”

12:20 - 12:30 Conclusion / *Closing remarks*

eLife Event (*McGill University*)

14:30 - 16:00 **Martin A. Nowak** (Harvard University)
“TBA”