

Centre de recherches mathématiques
Université de Montréal

Atelier : Problèmes combinatoires soulevés par la mécanique statistique
Du 19 au 23 février 2007

*Workshop: Combinatorial Problems Raised by Statistical Mechanics
February 19-23, 2007*

HORAIRE / PROGRAM

Conférences : salle 6214
Pauses-café : salle 6245

*Lectures: Room 6214
Coffee Breaks: Room 6245*

Le lundi 19 février 2007 / *Monday, February 19, 2007*

08:30 - 09:20 Inscription (5345) / *Registration (5345)*

08:30 - 09:20 Café croissants (6245) / *Coffee & Croissants (6245)*

09:20 - 09:30 Mots de bienvenue (6214) / *Welcoming addresses (6214)*

09:30 - 10:30 **Gordon Slade** (University of British Columbia)

“The lace expansion and the enumeration of self-avoiding walks”

10:30 - 15:00 Pause-café / *Coffee break*

(Salle / *Room* 6245)

10:50 - 11:20 **Xavier Gérard Viennot** (Université de Bordeaux I)

“Canopy of binary trees and asymmetric exclusion process”

11:30 - 12:00 **Soichi Okada** (Nagoya University)

“An identity for the power-sums of contents and its application to gauge theory”

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

14:40 - 14:40 Pause-café (6245) / *Coffee break (6245)*

14:40 - 15:40 **Alan Sokal** (New York University)

“Complete monotonicity for inverse powers of some combinatorially defined polynomials”

15:50 - 16:20 **Sylvie Corteel** (Université Paris-Sud)

“Permutation tableaux and the partially asymmetric exclusion process”

16:30 - 17:00 **Marni Mishna** (Simon Fraser University)

“Two non-holonomic lattice walks in the quarter plane”

Le mardi 20 février 2007 / *Tuesday, February 20, 2007*

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

09:30 - 10:30 **Christian Krattenthaler** (Universität Wien)

“Asymptotic analysis of vicious walkers between walls and on circles, and random walks in alcoves of affine Weyl groups”

10:30 - 10:50 Pause-café / *Coffee break*

(Salle / *Room* 6245)

10:50 - 11:20 **Johannes de Gier** (The University of Melbourne)

“Random tilings”

11:30 - 12:00 **Stu Whittington** (University of Toronto)

“Directed walk models of polymers subject to a force”

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

14:00 - 14:40 Pause-café (6245) / *Coffee break (6245)*

14:40 - 15:40 **Gilbert Labelle** (Université du Québec à Montréal)

“Mayer’s graph weights for the hard-core continuum gas in one dimension”

15:50 - 16:20 **Olivier Bernardi**

“Solution to some problems inspired by Mayer’s theory of cluster integrals”

17:00 - 19:00 Cocktail (UQAM) / *Reception (UQAM)*

19:00 - 20:30 Table ronde / *Discussions*

Le mercredi 21 février 2007 / *Wednesday, February 21, 2007*

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

09:30 - 10:30 **E.J. Janse van Rensburg** (York University)
“Directed paths in wedges”

10:30 - 10:50 Pause-café / *Coffee break*

10:50 - 11:20 **Chris E. Soteris** (University of Saskatchewan)
“Higher Order Morita Approximations for Random Copolymer models”

11:30 - 12:00 **Pierre Mathieu** (Université Laval)
“Multiple partitions, paths and conformal field theories”

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

14:00 - 14:40 Pause-café (6245) / *Coffee break (6245)*

15:00 - 15:30 **Roger Behrend** (Cardiff University)
“Osculating Paths and Oscillating Tableaux”

15:40 - 16:10 **David G. Wagner** (University of Waterloo)
“Negative correlations for trees, forests, and Potts models”

16:20 - 16:50 **Eric Fusy** (Projet ALGO INRIA Rocquencourt)
“An unbiased pointing operator for unlabeled structures”

Le jeudi 22 février 2007 / *Thursday, February 22, 2007*

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

09:30 - 10:30 **Philippe Di Francesco** (CEA Saclay)

“Loop Gas, Alternating Sign Matrices, Plane Partitions and Orbital Varieties : proofs and conjectures”

10:30 - 10:50 Pause / *Break*

10:50 - 11:20 **Mihai Ciucu** (Georgia Institute of Technology)

“The field of average tile orientations in random tilings with holes”

11:30 - 12:00 **Abdelmalek Abdesselam**

“The combinatorics of classical invariant theory revisited by modern physics”

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

14:00 - 14:40 Pause-café (6245) / *Coffee break (6245)*

14:40 - 15:40 **Anthony John Guttmann** (University of Melbourne)

“Scaling functions and generating functions for punctured polygons”

15:50 - 17:00 Séance d’affichage (6245) / *Poster Session (6245)*

Le vendredi 23 février 2007 / *Friday, February 23, 2007*

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

09:30 - 10:30 **Doron Zeilberger** (Rutgers University)

“Turning the Art of Guessing into a Science, and Then Applying it To Science (for example, to Stat. Mech.)”

10:30 - 10:50 Pause-café / *Coffee break*

(Salle / *Room* 6245)

10:50 - 11:20 **Andrew Rechnitzer** (The University of British Columbia)

“Directed walk models of a long chain polymer in a strip with attractive walls”

11:30 - 12:00 **Mireille Bousquet-Mélou** (Université Bordeaux 1)

“Negative hard-squares”