

Centre de recherches mathématiques
Université de Montréal

Atelier «Fonctions aléatoires, surfaces aléatoires et interfaces»
Du 4 au 9 janvier 2009

Workshop “Random functions, random surfaces and interfaces”
January 4-9, 2009

HORAIRE / *PROGRAM*

Le lundi 5 janvier 2009 / *Monday, January 5, 2009*

07:30 - 09:00 Petit-déjeuner / *Breakfast*

09:00 - 10:30 **Richard Kenyon** (Brown University)
“Dimers and Harnack curves”

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

11:00 - 11:45 **Tadahisa Funaki** (The University of Tokyo)
“Scaling limits for weakly pinned random walks with two large deviation minimizers”

11:45 - 12:30 **Jean-Dominique Deuschel** (Technische Universität Berlin)
“Decay of covariances, uniqueness of ergodic component and scaling limit for a class of gradient systems with non-convex potential”

12:30 - 16:00 Pause-déjeuner et après-midi libre / *Lunch break and free afternoon*

16:00 - 16:30 Café / *Coffee*

16:30 - 17:30 **Konstantin Khanin** (University of Toronto)
“Directed polymers and KPZ scalings”

17:30 - 18:30 **Sergei Nechaev** (Institut de Physique Nucléaire)
“On distribution of surface extrema in several one- and two-dimensional random landscapes and statistics of permutations”

19:30 Dîner / *Dinner*

Le mardi 6 janvier 2009 / *Tuesday, January 6, 2009*

07:30 - 09:00 Petit-déjeuner / *Breakfast*

09:00 - 09:45 **J. Richard Bond** (University of Toronto)

“The Past, Present and Future of Random Fields in Cosmology”

09:45 - 10:30 **Sergei F. Shandarin** (University of Kansas)

“The large-scale structure in the universe: the role of anisotropic and nonGaussian fields”

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

11:00 - 11:45 **Dmitri Pogosyan** (University of Alberta)

“The skeleton of the cosmic web”

11:45 - 12:30 **Rien van de Weygaert** (University of Groningen)

“Analysis & Multiscale Morphology of the Cosmic Web”

12:30 - 16:00 Pause-déjeuner et après-midi libre / *Lunch break and free afternoon*

16:00 - 16:30 Café / *Coffee*

16:30 - 17:30 **Lev Kofman** (University of Toronto)

“The random fields in the early universe theory”

17:30 - 18:30 **Michael R. Douglas** (Stony Brook University)

“Toy models of the string landscape”

19:30 Dîner / *Dinner*

Le mercredi 7 janvier 2009 / *Wednesday, January 7, 2009*

07:30 - 09:00 Petit-déjeuner / *Breakfast*

09:00 - 10:30 **Bertrand Duplantier** (CEA/Saclay)
“Liouville Quantum Gravity and KPZ”

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

11:00 - 12:30 **Scott Sheffield** (Courant Institute, NYU)
“Liouville quantum gravity”

12:30 - 16:00 Pause-déjeuner et après-midi libre / *Lunch break and free afternoon*

16:00 - 16:30 **Jason Miller** (Stanford University)
“Thick Points of the Gaussian Free Field”

16:30 - 17:30 **Yan Fyodorov** (University of Nottingham)
“Multifractality, freezing and extreme value statistics in models with logarithmic correlations”

17:30 - 18:30 **Semen Shlosman** (CNRS, Marseille-Luminy)
“À venir”
“TBA”

19:30 Dîner / *Dinner*

Le jeudi 8 janvier 2009 / *Thursday, January 8, 2009*

07:30 - 09:00 Petit-déjeuner / *Breakfast*

09:00 - 10:30 **Mikhail Sodin** (Tel-Aviv University)
“Fluctuations in random complex zeroes. Asymptotic normality revisited”

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

11:00 - 12:00 **Robert Adler** (Technion - Israel Institute of Technology)
“A kinematic formula for Gaussian excursions”

12:00 - 12:30 **Manjunath Krishnapur** (University of Toronto)
“Zeros of certain matrix-valued random analytic functions”

12:30 - 16:00 Pause-déjeuner et après-midi libre / *Lunch break and free afternoon*

16:00 - 16:30 Café / *Coffee*

16:30 - 17:30 **Pavel Bleher** (Indiana University-Purdue University Indianapolis)
“Arctic circle theorem for the six vertex model”

17:30 - 18:30 **Steve Zelditch** (Johns Hopkins University)
“Large deviations for empirical measures of zeros”

19:30 Dîner / *Dinner*

Le vendredi 9 janvier 2009 / *Friday, January 9, 2009*

07:30 - 09:00 Petit-déjeuner / *Breakfast*

09:00 - 10:00 **Semyon Klevtsov** (Rutgers, The State University of New Jersey)
“Bergman kernel, balanced metrics and black holes”

10:00 - 10:30 **Ben Baugher** (Johns Hopkins University)
“Statistics of Critical Points in Kahler Geometry and String Theory”

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

11:00 - 11:30 **Igor Wigman** (Université de Montréal)
“Nodal lines of random eigenfunctions of the Laplacian”

11:30 - 12:30 *Open Problems*

12:30 - 14:30 Déjeuner / *Lunch*

14:30 Départ de la navette pour Montréal / *Shuttle departure for Montreal*