

HORAIRE / *PROGRAM*

ATELIER D'ÉTÉ DE MONTRÉAL SUR

**LES DÉFIS EN PROBABILITÉS ET EN PHYSIQUE  
MATHÉMATIQUE**

9 au 20 juillet 2018

*MONTREAL SUMMER WORKSHOP ON*

***CHALLENGES IN PROBABILITY AND MATHEMATICAL  
PHYSICS***

*July 9–20, 2018*

**CONFÉRENCES :** salle 1140 (Pavillon André-Aisenstadt)

**LECTURES:** *Room 1140 (Pavillon André-Aisenstadt)*

Le lundi 9 juillet 2018 / *Monday, July 9, 2018*

08:30–09:15 Inscription et café croissants  
*Registration and Coffee & Croissants*

**09:15–10:15 Thomas Duquesne** (Sorbonne Université)  
*“Limits of multiplicative inhomogeneous random graphs and Lévy trees”*

**10:15–11:15 Souvik Dhara** (Microsoft Research and MIT)  
*“Critical behavior for configuration model with power-law degrees”*

11:15–11:45 Pause-café / *Coffee break*

**11:45–12:45 Lisa Hartung** (New York University)  
*“Tail asymptotics and the limit of the centered maximum in branching Brownian motion and friends”*

15:00–15:30 Café / *Coffee*

**Le mardi 10 juillet 2018 / Tuesday, July 10, 2018**

08:30–09:15 Café croissants / *Coffee & Croissants*

**09:15–10:15 Brian Rider** (Temple University)  
*“A general beta crosssover ensemble”*

**10:15–11:15 Afonso S. Bandeira** (New York University)  
*“Statistical estimation under group actions: The Sample complexity of multi-reference alignment”*

11:15–11:45 Pause-café / *Coffee break*

11:45–12:45 Session de travail / *Open Problem Session*

15:00–15:30 Café / *Coffee*

Le jeudi 12 juillet 2018 / *Thursday, July 12, 2018*

08:30–09:15 Café croissants / *Coffee & Croissants*

**09:15–10:15 Claudio Landim** (IMPA)

*“Potential theory and metastability of Markov chains”*

**10:15–11:15 Quentin Berger** (Sorbonne Université)

*“Directed polymers in random heavy-tail environment”*

11:15–11:45 Pause-café / *Coffee break*

**11:45–12:45 Joe Po-Chou Chen** (Colgate University)

*“Hydrodynamic limit of particle systems on resistance spaces”*

15:00–15:30 Café / *Coffee*

**Le vendredi 13 juillet 2018 / *Friday, July 13, 2018***

08:30–09:15 Café croissants / *Coffee & Croissants*

**09:15–10:15 Lionel Levine** (Cornell University)  
*“Halting problems in abelian networks”*

**10:15–11:15 Pierre Nolin** (City University of Hong Kong)  
*“No exceptional words for site percolation on  $\mathbb{Z}^3$ ”*

11:15–11:45 Café / *Coffee*

15:00–15:30 Café / *Coffee*

**Le lundi 16 juillet 2018 / Monday, July 16, 2018**

08:30–09:15 Café croissants / *Coffee & Croissants*

**09:15–10:15 Gregory Lawler** (University of Chicago)  
*“The two-sided loop-erased random walk”*

**10:15–11:15 Ori Gurel-Gurevich** (The Hebrew University of Jerusalem)  
*“Random walks on planar graphs”*

11:15–11:45 Pause-café / *Coffee break*

**11:45–12:45 Takashi Kumagai** (Kyoto University)  
*“Quenched invariance principle for random walks among random conductances with stable-like jumps”*

15:00–15:30 Café / *Coffee*

**Le mardi 17 juillet 2018 / Tuesday, July 17, 2018**

08:30–09:15 Café croissants / *Coffee & Croissants*

**09:15–10:15 Nina Gantert** (Technische Universität München)  
*“Biased random walk among random conductances”*

**10:15–11:15 Yueyun Hu** (Université Paris 13)  
*“On the Derrida-Retaux recursive model on trees”*

11:15–11:45 Pause-café / *Coffee break*

11:45–12:45 Session de travail / *Open Problem Session*

15:00–15:30 Café / *Coffee*

Le jeudi 19 juillet 2018 / *Thursday, July 19, 2018*

08:30–09:15 Café croissants / *Coffee & Croissants*

**09:15–10:15 Michael Damron** (Georgia Institute of Technology)  
*“Problems in first-passage percolation. 1: Limit shapes”*

**10:15–11:15 Jack Hanson** (The City College of New York)  
*“Problems in first-passage percolation. 2: Geodesics”*

11:15–11:45 Pause-café / *Coffee break*

**11:45–12:45 Philippe Sosoe** (Cornell University - College of Arts and Sciences)  
*“Problems in first-passage percolation. 3: Order of fluctuations”*

15:00–15:30 Café / *Coffee*



**Le vendredi 20 juillet 2018 / *Friday, July 20, 2018***

08:30–09:15 Café croissants / *Coffee & Croissants*

**09:15–10:15 Hubert Lacoïn (IMPA)**

*“Mixing time for exclusion processes and the effect of asymmetry”*

**10:15–11:15 Gérard Ben Arous (New York University)**

*“Temperature chaos”*

11:15–11:45 Café / *Coffee*

15:00–15:30 Café / *Coffee*