

Centre de recherches mathématiques
Université de Montréal

Atelier : Nouvelles approches en théorie probabiliste
et multiplicative des nombres
Du 8 au 12 décembre 2014

*Workshop: New approaches in probabilistic and multiplicative number theory
December 8-12, 2014*

HORAIRE / PROGRAM

Conférences : salle 6254 (Pavillon André-Aisenstadt)

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

Lectures: Room 6254 (Pavillon André-Aisenstadt)

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

Le lundi 8 décembre 2014 / *Monday, December 8, 2014*

08:30 - 09:30 Inscription (salle 5345) et café-croissants (salle 6245)
Registration (Room 5345) and Coffee & Croissants (Room 6245)

Chaire André-Aisenstadt Chair

09:30 - 10:10 **Carl Pomerance** (Dartmouth College)
"The ranges of some familiar functions"

10:20 - 10:50 **Adam James Harper** (University of Cambridge)
"Additive problems for very smooth numbers"

10:50 - 11:20 Pause-café / *Coffee break*
 (Salle / *Room* 6245)

11:20 - 11:50 **Andrew Granville** (Université de Montréal)
"The distribution of maximal character sums"

12:00 - 12:30 **Lillian Pierce** (Universität Bonn / Duke University)
"Recent progress on Burgess bounds"

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

14:30 - 15:10 **Gérald Tenenbaum** (Institut Élie Cartan)
"The distribution of ultrafriable integers"

15:20 - 15:50 **Maksym Radziwill** (Université de Montréal)
"Sign changes of Hecke eigenvalues"

15:50 - 16:10 Pause-café / *Coffee break*
 (Salle / *Room* 6245)

16:10 - 16:40 **Youness Lamzouri** (York University)
"The distribution of the Riemann zeta function in the critical strip"

Le mardi 9 décembre 2014 / *Tuesday, December 9, 2014*

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

09:30 - 10:10 **Gérald Tenenbaum** (Institut Élie Cartan)
“Concentration of and on divisors, a survey”

10:20 - 10:50 **Daniel Fiorilli** (Université d’Ottawa)
“Primes in arithmetic progressions and Vaughan’s approximation”

10:50 - 11:20 Pause-café / *Coffee break*
(Salle / Room 6245)

11:20 - 11:50 **Sourav Chatterjee** (Stanford University)
“Nonlinear large deviations”

12:00 - 12:30 **Cécile Dartyge** (Université de Lorraine)
“On the greatest prime factor of the twelfth cyclotomic polynomial”

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

14:30 - 15:10 **Kannan Soundararajan** (Stanford University)
“Zeros and moments of L-functions, I”

15:20 - 15:50 **Greg Martin** (University of British Columbia)
“Inclusive prime number races”

15:50 - 16:10 Pause-café / *Coffee break*
(Salle / Room 6245)

16:10 - 16:40 **Florian Luca** (University of the Witwatersrand)
“On the counting function of the range of the Carmichael lambda-function”

Le mercredi 10 décembre 2014 / *Wednesday, December 10, 2014*

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

09:30 - 10:10 **Kannan Soundararajan** (Stanford University)
“Zeros and moments of L-functions, II”

10:20 - 10:50 **Kaisa Matomäki** (University of Turku)
“Multiplicative functions in short intervals and applications”

10:50 - 11:20 Pause-café / *Coffee break*
(Salle / Room 6245)

11:20 - 11:50 **John Friedlander** (University of Toronto)

12:00 - 12:30 **Paul Bourgade** (New York University)
“Strong Szegő asymptotics for the Riemann zeta function”

Après-midi libre / *Free afternoon*

19:00 *Banquet*

Le jeudi 11 décembre 2014 / *Thursday, December 11, 2014*

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

09:30 - 10:10 **Gérald Tenenbaum** (Institut Élie Cartan)
“On the core of an integer”

10:20 - 10:50 **Robin Pemantle** (University of Pennsylvania)
“Permutations and sumsets of a random Poisson-Zipf set”

10:50 - 11:20 Pause-café / *Coffee break*
(Salle / Room 6245)

11:20 - 11:50 **Chantal David** (Concordia University)
“The distribution of elliptic curves over finite fields”

12:00 - 12:30 **Leo Goldmakher** (Williams College)
“Long character sums and the least nonresidue”

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

14:30 - 15:00 **James Maynard** (University of Oxford)
“Large gaps between primes”

15:10 - 15:40 **Sary Drappeau** (Université de Montréal)
“Friable numbers and the dispersion method”

15:40 - 16:00 Pause-café / *Coffee break*
(Salle / Room 6245)

Chaire André-Aisenstadt Chair
(Pavillon Claire-McNicoll, Salle / Room Z-220)

16:00 - 16:50 **Carl Pomerance** (Dartmouth College)
“The first function”

17:00 *Reception*
(Salle / Room 6245)

Le vendredi 12 décembre 2014 / *Friday, December 12, 2014*

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

Chaire André-Aisenstadt Chair

09:30 - 10:10 **Carl Pomerance** (Dartmouth College)
“Amicable numbers”

10:20 - 10:50 **Paul Pollack** (University of Georgia)
“Statistics associated with reductions of elliptic curves modulo p ”

10:50 - 11:20 Pause-café / *Coffee break*
(Salle / Room 6245)

11:20 - 11:50 **Régis de la Bretèche** (Université Paris Diderot)
“The distribution of friable integers is definitely not smooth”

12:00 - 12:30 **Jean-Marie De Koninck** (Université Laval)
“On the powerful and squarefree parts of an integer”

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

14:30 - 15:10 **Kannan Soundararajan** (Stanford University)
“Zeros and moments of L -functions, III”

15:20 - 15:50 **Hugh Montgomery** (University of Michigan)
“Extreme values of the zeta function at critical points”