

Programme on  
“Algorithmic and Enumerative Combinatorics”

October 16 – November 24, 2017

organized by

Mireille Bousquet-Mélou (CNRS, U de Bordeaux), Michael Drmota (TU Vienna),  
Christian Krattenthaler (U Vienna), Peter Paule (U Linz),  
Michael Singer (North Carolina State U, Raleigh)

Workshop 1 on “Enumerative Combinatorics”

October 16 – 20, 2017

• Monday, October 16, 2017

09:00 – 09:30 **Registration**

09:30 – 10:30 **Mihyun Kang** (TU Graz, Austria)

*Introductory Talk: Enumeration of graphs on surfaces, I*

10:30 – 11:00 *Coffee / Tea Break*

11:00 – 12:00 **Michael Singer** (North Carolina State University, Raleigh, USA)

*Introductory Talk: A Galoisian approach to counting walks, I*

12:00 – 14:00 *Lunch Break*

14:00 – 15:00 **Mihyun Kang** (TU Graz, Austria)

*Introductory Talk: Enumeration of graphs on surfaces, II*

15:00 – 15:30 *Break*

15:30 – 16:30 **Michael Singer** (North Carolina State University, Raleigh, USA)

*Introductory Talk: A Galoisian approach to counting walks, II*

17:00 – 19:00 *Reception*

• Tuesday, October 17, 2017

09:00 – 10:00 **David Broadhurst** (Open University, Milton Keynes, United Kingdom)

*Combinatorics of Feynman integrals*

10:00 – 10:30 *Coffee / Tea Break*

10:30 – 11:10 **Paul Zinn-Justin** (University of Melbourne, Australia)

*1324-avoiding permutations revisited*

11:20 – 12:00 **Shishuo Fu** (Chongqing University, China)

*A unifying combinatorial approach to refined little Göllnitz and Capparelli’s companion identities*

12:00 – 14:00 *Lunch Break*

14:00 – 14:40 **Jiang Zeng** (Université Lyon-I, France)

*Some multivariate master polynomials for permutations, set partitions, and perfect matchings, and their continued fractions*

14:50 – 15:30 **Matthieu Josuat-Vergès** (Université de Marne-la-Vallée, France)

*Noncrossing partitions, Bruhat order, and the cluster complex*

15:30 – 16:10 *Break*

16:10 – 16:50 **Philippe Nadeau** (Université Lyon-I, France)

*The alternating group and noncrossing partitions*

• **Wednesday, October 18, 2017**

09:00 – 10:00 **Greta Panova** (University of Pennsylvania, Philadelphia, USA)

*Hook formulas for skew shapes: combinatorics and asymptotics*

10:00 – 10:30 *Coffee / Tea Break*

10:30 – 11:10 **Sergi Elizalde** (Dartmouth College, Hanover, USA)

*Cyclic descents of standard Young tableaux*

11:20 – 12:00 **Jim Haglund** (University of Pennsylvania, Philadelphia, USA)

*Recent progress on the Delta conjecture*

12:10 – 12:50 **Jang Soo Kim** (Sungkyunkwan University, Suwon, South Korea)

*Hook length property of  $d$ -complete posets via  $q$ -integrals*

12:50 – *Free afternoon*

• **Thursday, October 19, 2017**

09:00 – 10:00 **Guillaume Chapuy** (CNRS, Université Paris Diderot, France)

*Counting triangulated  $d$ -manifolds, asymptotically*

10:00 – 10:30 *Coffee / Tea Break*

10:30 – 11:10 **Wenjie Fang** (TU Graz, Austria)

*Planar maps and Tamari-like intervals*

11:20 – 12:00 **Philipp Sprüssel** (TU Graz, Austria)

*Unlabelled planar graphs and symmetries of triangulations*

12:00 – 14:00 *Lunch Break*

14:00 – 14:40 **Roger Behrend** (Cardiff University, UK, and Universität Wien, Austria):

*Schur function factorizations, with applications to alternating sign matrices and plane partitions*

14:50 – 15:30 **Jérémie Bouttier** (CEA Saclay, France)

*The free boundary Schur process and applications*

15:30 – 16:10 *Break*

16:10 – 16:50 **Soichi Okada** (Nagoya University, Japan)

*Symplectic Schur  $Q$ -functions*

19:00 *Heurigenabend* (~ Conference Dinner)

• **Friday, October 20, 2017**

09:00 – 10:00 **Tony Guttmann** (University of Melbourne, Australia)

*The growth of groups, with application to Thompson's group  $F$*

10:00 – 10:30 *Coffee / Tea Break*

10:30 – 11:20 **Hsien-Kui Hwang** (Academia Sinica, Taipei, Taiwan)

*Limit laws for linear recurrences of Eulerian type*

11:30 – 12:10 **Jay Pantone** (Dartmouth College, Hanover, USA)

*Sorting with C-machines*

12:10 – 14:00 *Lunch Break*

14:00 – 14:40 **Svante Linusson** (KTH Stockholm, Sweden)

*Continuous multiline queues and the TASEP on a ring*

14:50 – 15:30 **Michael Borinsky** (Humboldt Universität, Berlin, Germany)

*Hopf algebras and factorial divergent power series: Algebraic tools for graphical enumeration*

**All talks take place at ESI, Boltzmann Lecture Hall!**