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 Michael Borinsky (Humboldt Universität, Berlin, Germany)
  Hopf algebras and factorial divergent power series: Algebraic tools for graphical enumeration
  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*

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**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 – 11:30 **Hsien-Kui Hwang** (Academia Sinica, Taipei, Taiwan)
*Limit laws for linear recurrences of Eulerian type*

11:30 – 12:30 **Jay Pantone** (Dartmouth College, Hanover, USA)
*Sorting with C-machines*

12:00 – 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 **Paul Zinn-Justin** (University of Melbourne, Australia)
*1324-avoiding permutations revisited*

All talks take place at ESI, Boltzmann Lecture Hall!