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

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* ($\sim$ 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!