

Asymptotic Algebraic Combinatorics

Monday February 3, 2020

- 8:00–8:55 *Check-In/Light Breakfast (Hosted by IPAM)*
- 8:55–9:00 *Welcome & Opening Remarks: Dean Miguel García-Garibay (Dean of Physical Sciences, UCLA) and Dima Shlyakhtenko (Director, IPAM)*
- 9:00–9:50 **Ivan Corwin** (Columbia University)
Partitions functions and the geometric RSK correspondence
- 10:00–10:15 *Break*
- 10:15–11:05 **Alexey Bufetov** (University of Bonn)
Interacting particle systems and random walks on Hecke algebras
- 11:15–11:30 *Break*
- 11:30–12:20 **Konstantin Matveev** (Rutgers University)
Positivity for symmetric functions and vertex models
- 12:30–2:00 *Lunch (on your own)*
- 2:00–2:50 **Vadim Gorin** (Massachusetts Institute of Technology)
Shift invariance for the six-vertex model and directed polymers
- 3:00–3:15 *Break*
- 3:15–4:05 **Alexei Borodin** (Massachusetts Institute of Technology)
Observables of coloured stochastic vertex models and their polymer limits
- 4:15–4:30 *Break*
- 4:30–5:20 **Leonid Petrov** (University of Virginia)
Parameter Permutation Symmetry in Particle Systems and Random Polymers
- 5:30–6:30 *Poster Session & Reception (Hosted by IPAM)*

Tuesday February 4, 2020

- 8:00–9:00 *Check-In/Breakfast (Hosted by IPAM)*
- 9:00–9:50 **Richard Kenyon** (Yale University)
On the 5-Vertex Model
- 10:00–10:15 *Break*

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- 10:15–11:05 **Zhongyang Li** (University of Connecticut)
XOR Ising model and constrained percolation
- 11:15–11:30 *Break*
- 11:30–12:20 **Ian Alevy** (University of Rochester)
Renormalizable Domain Exchange Maps
- 12:30–2:00 *Lunch (on your own)*
- 2:00–2:50 **Pavlo Pylyavskyy** (University of Minnesota, Twin Cities)
Algebraic entropy in combinatorial dynamical systems
- 3:00–3:10 *Break*
- 3:10–4:00 **Damir Yeliussizov** (Kazakh-British Technical University)
Bounds and inequalities for the Littlewood-Richardson coefficients
- 4:10–4:20 *Break*
- 4:20–5:10 **Sevak Mkrtchyan** (University of Rochester)
Plane partitions with periodic weights
- 5:20 *Conclusion*

Wednesday February 5, 2020

- 8:00–9:00 *Check-In/Breakfast (Hosted by IPAM)*
- 9:00–9:50 **Paul Zinn-Justin** (University of Melbourne)
Schubert calculus and quantum integrability
- 10:00–10:15 *Break*
- 10:15–11:05 **Fedor Petrov** (Steklov Institute of Mathematics at St. Petersburg)
Inequalities for posets
- 11:15–11:30 *Break*
- 11:30–12:20 **Alejandro Morales** (University of California, Los Angeles (UCLA))
Asymptotics of principal evaluations of Schubert polynomials
- 12:30–12:40 *Break*
- 12:40–1:30 **Christian Gaetz** (Massachusetts Institute of Technology)
Antichains and intervals in the weak order
- 1:40 *Conclusion*

Thursday February 6, 2020

- 8:00–9:00 *Check-In/Breakfast (Hosted by IPAM)*
- 9:00–9:50 **Patrik Ferrari** (Rheinische Friedrich-Wilhelms-Universität Bonn)
Stationary half-space last passage percolation
- 10:00–10:15 *Break*
- 10:15–11:05 **Jan de Gier** (University of Melbourne)
Current distribution for a two-species particle model from first principles
- 11:15–11:30 *Break*
- 11:30–12:20 **Martin Tassy** (Dartmouth College)
Understanding the asymptotics of the number of tableaux of skew shape through a variational principle
- 12:30–2:00 *Lunch (on your own)*
- 2:00–2:50 **Philippe Di Francesco** (University of Illinois at Urbana-Champaign)
Triangular Ice Combinatorics
- 3:00–3:10 *Break*
- 3:10–4:00 **Amol Aggarwal** (Harvard University)
Arctic Curves for Ice Models
- 4:10–4:20 *Break*
- 4:20–5:10 **Benson Au** (University of California, San Diego (UCSD))
Finite-rank perturbations of random band matrices via infinitesimal free probability
- 5:20 *Conclusion*

Friday February 7, 2020

- 8:00–9:00 *Check-In/Breakfast (Hosted by IPAM)*
- 9:00–9:50 **Dan Romik** (University of California, Davis (UC Davis))
Asymptotic analysis on the Riemann ξ function and its orthogonal polynomial expansions
- 10:00–10:15 *Break*
- 10:10–11:00 **Jehanne Dousse** (CNRS, Université de Lyon)
Partition identities and $A_n^{(1)}$ crystals
- 11:20–12:10 **Maciej Dolega** (Polish Academy of Sciences)
Random Young diagrams and the approximate factorization property
- 12:20 *Conclusion*

