

Workshop I: Statistical Mechanics and Discrete Geometry

Monday March 25, 2024

- 8:00–8:55 *Check-in/Breakfast (hosted by IPAM)*
- 8:55–9:00 *Welcome and Opening Remarks*
- 9:00 *Moderator: Marianna Russkikh*
- 9:00–9:50 **Richard Kenyon** (Yale University)
The multinomial dimer model
- 10:00–10:15 *Break*
- 10:15–11:05 **Tomas Berggren** (Massachusetts Institute of Technology)
Geometry of the doubly periodic Aztec dimer model
- 11:15–11:30 *Break*
- 11:30–12:20 **Zhongyang Li** (University of Connecticut)
Planar Site Percolation via Tree Embeddings
- 12:30–2:30 *Lunch (on your own)*
- 2:30 *Moderator: Sanjay Ramassamy*
- 2:30–3:20 **Mirjana Vuletić** (University of Massachusetts Boston)
Bulk scaling limits in free boundary Schur process
- 3:30–4:00 *Lightning Poster Round*
- 4:00–5:45 *Poster Session & Reception (Hosted by IPAM)*

Tuesday March 26, 2024

- 8:00–9:00 *Check-in/Breakfast (hosted by IPAM)*
- 9:00 *Moderator: Fredrik Viklund*
- 9:00–9:50 **Pavel Galashin** (University of California, Los Angeles (UCLA))
Geometric objects associated to planar bipartite graphs
- 10:00–10:15 *Break*
- 10:15–11:05 **Pavlo Pylyavskyy** (University of Minnesota, Twin Cities)
Superport networks
- 11:15–11:30 *Break*

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- 11:30–12:20 **Nathanael Berestycki** (University of Vienna)
Random matrix statistics in the uniform spanning tree
- 12:30–2:30 *Lunch (on your own)*
- 2:30 *Moderator: Michael Gekhtman*
- 2:30–3:20 **Sergey Fomin** (University of Michigan)
Incidences and tilings
- 3:30–4:00 *Break*
- 4:00–4:50 **Anton Izosimov** (University of Arizona)
Incidences and dimers

Wednesday March 27, 2024

- 8:00–9:00 *Check-in/Breakfast (hosted by IPAM)*
- 9:00 *Moderator: Richard Kenyon*
- 9:00–9:50 **Abhijit Champanerkar** (College of Staten Island, CUNY)
Geometric bounds for spanning tree entropy of planar lattices
- 10:00–10:15 *Break*
- 10:15–11:05 **Jessica Purcell** (Monash University)
Constructing knots with specified geometric limits
- 11:15–11:30 *Break*
- 11:30–12:20 **Harold Williams** (University of Southern California (USC))
Bipartite graphs and mirror coamoebae
- 12:30–12:45 *Group Photo*
- 12:45–2:30 *Lunch (on your own)*
- 2:30 *Moderator: Hao Wu*
- 2:30–3:20 **Marcin Lis** (Technische Universität Wien)
On Pfaffians in spin models
- 3:30–4:00 *Break*

Thursday March 28, 2024

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- 8:00–9:00 *Check-in/Breakfast (hosted by IPAM)*
- 9:00 *Moderator: Anton Izosimov*
- 9:00–9:50 **Alexander Bobenko** (Technische Universität Berlin)
Dimers and M-curves: Limit shapes from Riemann surfaces.
- 10:00–10:15 *Break*
- 10:15–11:05 **Cédric Boutillier** (Sorbonne Université)
Minimal bipartite dimers and maximal Riemann surfaces
- 11:15–11:30 *Break*
- 11:30–12:20 **Terrence George** (University of California, Los Angeles (UCLA))
Spectrum of the Ising model
- 12:30–2:30 *Lunch (on your own)*
- 2:30 *Moderator: Nathanael Berestycki*
- 2:30–3:20 **Eveliina Peltola** (Aalto University)
On variants of Specht polynomials and random geometry
- 3:30–4:00 *Break*
- 4:00–4:50 **Mikhail Basok** (University of Helsinki)
Dimers on a Riemann surface and compactified free field

Friday March 29, 2024

- 8:00–9:00 *Check-in/Breakfast (hosted by IPAM)*
- 9:00 *Moderator: Leonid Petrov*
- 9:00–9:50 **Stanislav Smirnov** (Université de Genève)
Coulomb gas and lattice models
- 10:00–10:15 *Break*
- 10:15–11:05 **Matthew Nicoletti** (Massachusetts Institute of Technology)
Perfect t -embeddings of uniform Aztec diamond graphs
- 11:15–11:30 *Break*
- 11:30–12:20 **Niklas Affolter** (Technische Universität Berlin)
 S -embeddings and discrete maximal Lorentz surfaces

