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: RichardKenyon*

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** (Massachussetts 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