

## Workshop III: Statistical Mechanics Beyond 2D

### Monday May 6, 2024

- 8:00–8:55 *Check-In/Breakfast (Hosted by IPAM)*
- 8:55–9:00 *Welcome and Opening Remarks*
- 9:00 *MODERATOR: Rick Kenyon*
- 9:20–10:10 **Paul Duncan** (The Hebrew University of Jerusalem)  
*Homological Percolation in a Torus*
- 10:20–10:45 *Break*
- 10:45–11:35 **Oanh Nguyen** (Brown University)  
*Epidemics on large networks*
- 11:45–2:30 *Lunch (on your own)*
- 2:30 *MODERATOR: Tom Hutchcroft*
- 2:30–3:20 **Vittoria Silvestri** (Sapienza University of Rome)  
*Random aggregation on the complex plane and the Hastings-Levitov models*
- 3:30–4:00 *Break*
- 4:00–4:50 **Allan Sly** (Princeton University)  
*Local Weak Convergence for Random Constraint Satisfaction Problems*
- 5:00–5:15 *Lightning Poster Session*
- 5:15–5:30 *Birthday Presentation for Rick Kenyon*
- 5:30–6:30 *Poster Session & Reception (Hosted by IPAM)*

### Tuesday May 7, 2024

- 8:00–9:00 *Check-In/Breakfast (Hosted by IPAM)*
- 9:00 *MODERATOR: Omer Angel*
- 9:00–9:50 **James Lee** (University of Washington)  
*Scaling exponents in stationary random graphs*
- 10:00–10:15 *Break*

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- 10:15–11:05 **Dor Elboim** (Institute for Advanced Study)  
*Poisson-Dirichlet distribution for the interchange process in five dimensions.*
- 11:15–11:30 *Break*
- 11:30–12:20 **Benjamin Schweinhart** (George Mason University)  
*The Plaquette Random Cluster Model and Potts Lattice Gauge Theory*
- 12:30–2:30 *Lunch (on your own)*
- 2:30 *MODERATOR: Perla Sousi*
- 2:30–3:20 **Tyler Helmuth** (Durham University)  
*The Arboreal Gas*
- 3:30–4:00 *Break*
- 4:00–5:00 *Discussion Time*

### Wednesday May 8, 2024

- 8:00–9:00 *Check-In/Breakfast (Hosted by IPAM)*
- 9:00 *MODERATOR: Ron Peled*
- 9:00–9:50 **Evita Nestoridi** (SUNY Stony Brook)  
*Cutoff for biased transpositions*
- 10:00–10:15 *Break*
- 10:15–11:05 **Yuval Peled** (Hebrew University)  
*Virtual Talk: Rigidity of Random Graphs*
- 11:15–11:30 *Break*
- 11:30–12:20 **Alma Sarai Hernandez Torres** (National Autonomous University of Mexico (UNAM))  
*Minkowski content of the scaling limit of 3D loop-erased random walk*
- 12:30 *Group Photo*
- 12:30–2:30 *Lunch (on your own)*
- 2:30 *MODERATOR: Catherine Wolfram*
- 2:30–3:20 **Amine Asselah** (Université Paris-Est Créteil (UPEC))  
*Branching Random Walks on  $Zd$ , for  $d > 4$*
- 3:30–4:00 *Break*
- 4:00–4:50 **Alan Hammond** (University of California, Berkeley (UC Berkeley))  
*Stability and chaos in dynamical last passage percolation.*

## Thursday May 9, 2024

- 8:00–9:00 *Check-In/Breakfast (Hosted by IPAM)*
- 9:00 *MODERATOR: Ben Schweinhart*
- 9:00–9:50 **Ron Peled** (Tel Aviv University)  
*Minimal Surfaces in Random Environment*
- 10:00–10:15 *Break*
- 10:15–11:05 **Catherine Wolfram** (Massachusetts Institute of Technology)  
*Dimers in 3D*
- 11:15–11:30 *Break*
- 11:30–12:20 **Lily Reeves** (California Institute of Technology)  
*Distances in hierarchical percolation*
- 12:30–2:30 *Lunch (on your own)*
- 2:30 *MODERATOR: James R. Lee*
- 2:30–3:20 **Reza Gheissari** (Northwestern University)  
*Spectral gap estimates for the random field Ising model*
- 3:30–4:00 *Break*
- 4:00–4:50 **Omer Angel** (University of British Columbia)  
*Interacting Polya urns*

## Friday May 10, 2024

- 8:00–9:00 *Check-In/Breakfast (Hosted by IPAM)*
- 9:00 *MODERATOR: Saraí Hernández-Torres*
- 9:00–9:50 **Caroline Klivans** (Brown University)  
*Higher dimensional trees, chips and matroids*
- 10:00–10:15 *Break*
- 10:15–11:05 **Robin Tucker-Drob** (University of Florida)  
*Virtual Talk: The Radon–Nikodym topography of amenable equivalence relations in an acyclic graph*
- 11:15–11:30 *Break*
- 11:30–12:20 **Christopher Hoffman** (University of Washington)  
*The density conjecture for activated random walk*

