

New Interactions between probability and geometry

Monday January 26, 2026

- 8:00–8:55 *Check-In/Breakfast (Hosted by IPAM)*
- 8:55–9:00 *Welcome and Opening Remarks*
- 9:00 *MODERATOR: Yilin Wang*
- 9:00–9:45 **Scott Sheffield** (Massachusetts Institute of Technology)
TBA
- 10:00–10:15 *Break*
- 10:15–11:00 **Mingkun Liu** (Université de Paris XIII (Paris-Nord))
Length spectrum of random surfaces and random graphs
- 11:15–11:30 *Break*
- 11:30–12:15 **Joe Thomas** (Durham University)
The polynomial method for spectral gaps of random hyperbolic surfaces
- 12:30–2:30 *Lunch (on your own)*
- 2:30 *MODERATOR: Yilin Wang*
- 2:30–3:15 **Franco Vargas Pallete** (Arizona State University)
W-volume for planar domains with circular boundary
- 3:30–4:00 *Break*
- 4:00–4:45 *Discussion*

Tuesday January 27, 2026

- 8:00–8:55 *Check-In/Breakfast (Hosted by IPAM)*
- 9:00 *MODERATOR: Fredrik Viklund*
- 9:00–9:45 **Kurt Johansson** (KTH Royal Institute of Technol)
Planar Coulomb gas on a Jordan arc
- 10:00–10:15 *Break*
- 10:15–11:00 **Eero Saksman** (University of Helsinki)
Some random geometry in Riemann zeta
- 11:15–11:30 *Break*

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- 11:30–12:15 **Tianyi Zheng** (University of California San Diego)
Quasi-isometric nonequivalence for random subsets in products of trees
- 12:30–2:30 *Lunch (on your own)*
- 2:30 *MODERATOR: Fredrik Viklund*
- 2:30–3:15 **Shirshendu Ganguly** (University of California, Berkeley)
Polymer models in critical environments.
- 3:30–3:45 *Lightning Poster Round*
- 3:45–5:00 *Poster Session & Reception (Hosted by IPAM)*

Wednesday January 28, 2026

- 8:00–8:55 *Check-In/Breakfast (Hosted by IPAM)*
- 9:00 *MODERATOR: Steffen Rohde*
- 9:00–9:45 **Paul Wiegmann** (University of Chicago)
Quantum Field Theory Approach to Selberg-Dyson Integrals with a large number of variables on Jordan curves
- 10:00–10:15 *Break*
- 10:15–11:00 **Iliia Binder** (University of Toronto)
Computability and Complexity in Complex Analysis: from 2007 to 2026
- 11:15–11:30 *Break*
- 11:30–12:15 **Catherine Wolfram** (ETH Zurich)
Brownian bubble tea
- 12:30–12:40 *Group Photo*
- 12:30–2:30 *Lunch (on your own)*
- 2:30 *Afternoon Free*

Thursday January 29, 2026

- 8:00–8:55 *Check-In/Breakfast (Hosted by IPAM)*
- 9:00 *MODERATOR: Mario Bonk*
- 9:00–9:45 **Ewain Gwynne** (University of Chicago)
Directed distances in bipolar-oriented triangulations: exact exponent and scaling limits
- 10:00–10:15 *Break*
- 10:15–11:00 **Jacopo Borga** (Massachusetts Institute of Technology)
Exact exponents for directed distances in planar maps in the γ -LQG universality class for $\gamma \in (0, \sqrt{4/3})$
- 11:15–11:30 *Break*
- 11:30–12:15 **Tom Alberts** (University of Utah)
Spectral Properties of Random Cluster Models and Applications to Composite Materials
- 12:30–2:30 *Lunch (on your own)*
- 2:30 *MODERATOR: Mario Bonk*
- 2:30–3:15 **Yuyang Feng** (University of Chicago)
The scaling limit of loop-erased percolation interface on the uniform infinite triangulation
- 3:30–4:00 *Break*
- 4:00–4:45 *Discussion*

Friday January 30, 2026

- 8:00–8:55 *Check-In/Breakfast (Hosted by IPAM)*
- 9:00 *MODERATOR: Hrant Hakobyan*
- 9:00–9:45 **Omer Angel** (University of British Columbia)
Phase transitions in the frog model.
- 10:00–10:15 *Break*
- 10:15–11:00 **Malik Younsi** (University of Hawaii at Manoa)
Miracles of holomorphic motions
- 11:15–11:30 *Break*
- 11:30–12:15 *Discussion*

