

Analysis and Geometry of Random Shapes

Monday January 7, 2019

- 8:30–9:20 *Check-in/Breakfast (hosted by IPAM)*
- 9:20–9:30 *Welcome and Opening Remarks*
- 9:30–10:20 **Gregory Lawler** (University of Chicago)
Random walk loop measures, partition functions, and multiple SLEs
- 10:30–11:00 *Break*
- 11:00–11:50 **Stephane Benoist** (Massachusetts Institute of Technology)
Conformally invariant measures on simple loops
- 12:00–2:00 *Lunch (on your own)*
- 2:00–2:50 **Christopher Bishop** (SUNY Stony Brook)
Random thoughts on random sets
- 3:00–3:30 *Break*
- 3:30–4:20 **Amanda Turner** (Lancaster University)
Scaling limits for planar aggregation with subcritical fluctuations
- 4:30–5:00 *Group Discussion*
- 5:00–6:30 *Poster Session & Reception (Hosted by IPAM)*

Tuesday January 8, 2019

- 8:30–9:30 *Check-in/Breakfast (hosted by IPAM)*
- 9:30–10:20 **Kari Astala** (Aalto University)
Part 1: Random tilings, free boundary problems and the Beltrami equation
- 10:30–11:00 *Break*
- 11:00–11:50 **Malik Younsi** (University of Hawaii at Manoa)
Removability, rigidity of circle domains and Koebe's conjecture
- 12:00–2:00 *Lunch (on your own)*
- 2:00–2:50 **Yilin Wang** (ETH Zurich)
Part 1: Loewner energy via Brownian loop measure and action functional analogs of SLE/GFF couplings
- 3:00–3:30 *Break*

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- 3:30–4:20 **Kari Astala** (Aalto University)
Part 2: Random tilings, free boundary problems and the Beltrami equation
- 4:30–5:30 *Group Discussion*

Wednesday January 9, 2019

- 8:30–9:30 *Check-in/Breakfast (hosted by IPAM)*
- 9:30–10:20 **Ilya Binder** (University of Toronto)
The polynomial rate of convergence of critical interfaces
- 10:30–10:45 *Break*
- 10:45–11:35 **Yilin Wang** (ETH Zurich)
Part 2: Loewner energy via Brownian loop measure and action functional analogs of SLE/GFF couplings
- 11:45–12:00 *Break*
- 12:00–12:50 **Mathav Murugan** (University of British Columbia)
Quasisymmetric uniformization and heat kernel estimates
- 1:00–2:00 *Lunch (on your own)*
- 2:00 *Afternoon Free*

Thursday January 10, 2019

- 8:30–9:30 *Check-in/Breakfast (hosted by IPAM)*
- 9:30–10:20 **Nikolai Makarov** (California Institute of Technology)
Calculus on Riemann surfaces
- 10:30–11:00 *Break*
- 11:00–11:50 **Peter Lin** (University of Washington)
Conformal welding of dendrites
- 12:00–2:00 *Lunch (on your own)*
- 2:00–2:50 **Jun Kigami** (Kyoto University)
Weakly exponential measures and time changes of the Brownian motion.
- 3:00–3:30 *Break*

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3:30–4:20 **Daniel Meyer** (University of Liverpool)
Uniformization of quasitrees

4:30–5:30 *Discussion: Future Directions*

Friday January 11, 2019

8:30–9:30 *Check-in/Breakfast (hosted by IPAM)*

9:30–9:50 **Atul Shekhar** (Royal Institute of Technology (KTH))
Some remarks on Loewner quasi-slits and other deterministic Loewner chains

10:00–10:20 **Eveliina Peltola** (The University of Geneva)
Crossing Probabilities of Multiple Ising Interfaces

10:30–11:00 *Break*

11:00–11:50 **Huy Tran** (Technische Universität Berlin)
Holomorphic motion of Loewner curves

12:00–2:00 *Lunch (on your own)*

2:00–2:50 **Nina Holden** (ETH Zürich)
Natural measures on random fractals

3:00–3:15 *Break*

3:15–4:45 *Group Discussion*

4:45 *Conclusion*

