



Mathematics and CS Seminar

Integrability of limit shapes

Istvan Prause

University of Eastern Finland

Host: M. Beiglböck, N. Berestycki, L. Erdős, J. Maas, F. Toninelli

Many models in statistical mechanics exhibit limit shape formation: on the macroscopic scale the random system concentrates onto a fixed deterministic limit. These geometric limit shapes arise as minimisers of gradient variational problems. I'll describe an integrability principle for variational problems which results in explicit representation of limit shapes in terms of harmonic functions across a variety of models. Some new features beyond free fermionic settings will be discussed. The talk is based on joint works with Rick Kenyon (<https://arxiv.org/abs/2006.01219> and <https://arxiv.org/abs/2101.04195>).

Tuesday, March 9, 2021 05:30pm - 06:15pm

Online via Zoom



This invitation is valid as a ticket for the ISTA Shuttle from and to Heiligenstadt Station. Please find a schedule of the ISTA Shuttle on our webpage: <https://ista.ac.at/en/campus/how-to-get-here/> The ISTA Shuttle bus is marked ISTA Shuttle (#142) and has the Institute Logo printed on the side.