IST AUSTRIA
Institute of Science and Technology

Mathematics and CS Seminar

Dynamics of random interfaces and tilings of the plane

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Host: Laszlo Erdös

I will start from the following apparently simple question, motivated by non-equilibrium statistical physics. Given an integer L, color the points "x" of Z^d black for |x|How does the set of black sites evolve macroscopically, as L and the time tend to infinity?
I will show that this question is actually quite challenging and it is related to several interesting mathematical objects: (i) to anisotropic curve shortening flows in the d=2 case, (ii) to random tilings of the plane in the d=3 case; and (iii) to the computation of the running time of probabilistic Markov Chain Monte Carlo sampling algorithms on complex combinatorial structures.

Monday, March 4, 2019 10:00am - 11:00am

IST Austria Campus Mondi Seminar Room 2, Central Building

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