



Seminar/Talk

Dynamics of random interfaces and tilings of the plane

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Host: Laszlo Erdős

I will start from the following apparently simple question, motivated by non-equilibrium statistical physics. Given an integer L , color the points " x " of \mathbb{Z}^d black for $|x| \leq L$. 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

Mondi Seminar Room 2, Central Building



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