

Department of Mathematics

Inn'formal Probability Seminar

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"Aggregation models with multiple sources on fractal graphs"

Abstract

We study the scaling limits for three aggregation models on Sierpinski gasket graphs SG: internal DLA, in which particles perform random walks until reaching unoccupied sites; the rotor model, in which particles perform deterministic analogues of random walks; and the divisible sandpile, in which each site distributes its excess mass equally among its neighbours. We let the spacing in the gasket go to zero, and we show that all three models have the same scaling limit, which we can describe as the solution of an obstacle problem on a closed connected subset of R^2. This talk is based on recent work (2022) with Uta Freiberg, Ecaterina Sava-Huss, and Robin Kaiser.

Monday | 17.10.2022 | 16:15 SR 609 | civil engineer building