



THE UNIVERSITY OF CHICAGO

COMPUTATIONAL AND APPLIED MATHEMATICS COLLOQUIUM

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The Abelian Sandpile and Circle Packings

THURSDAY, March 1, 2018, at 5:00 PM
Jones 226, 5747 South Ellis Avenue

ABSTRACT

The Abelian sandpile is a simple and deterministic diffusion process on graphs, devised as a model of self-organized criticality by Bak, Tang, and Wiesenfeld. The scaling limit of the sandpile on a periodic graph is a nonlinear elliptic partial differential equation with complicated algebraic structure. I will discuss the sandpile, the algebraic structure of its scaling limit, and the fractal pictures it produces.

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