



THE UNIVERSITY OF
CHICAGO

Department of Statistics

DISSERTATION PROPOSAL

AHMED BOU-RABEE

Department of Statistics
The University of Chicago

Abelian Sandpiles, Random Walks, Monge-Ampère, and
Supercritical Percolation

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Jones 111, 5747 S. Ellis Avenue

ABSTRACT

The Abelian Sandpile is a simple combinatorial model from statistical physics which produces striking fractal-like patterns. What aspects of the patterns persist under the introduction of randomness? I will show how tools from random walks and stochastic homogenization can be used to answer this question. Ongoing work will also be previewed.