A SIMPLE IMPLEMENTATION OF THE ABELIAN SANDPILE MODEL

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BACKGROUND

- Self-Organized Criticality (SOC):
 spontaneous evolution towards critical state
- No «fine tuning»
- Fractal structure, scale-free: power-law behaviour
- Cellular automaton
 - Abelian properties

PHYSICAL REVIEW LETTERS

VOLUME 59 27 JULY 1987 NUMBER

Self-Organized Criticality: An Explanation of 1/f Noise

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(Received 13 March 1987)

We show that dynamical systems with spatial degrees of freedom naturally evolve into a self-organized critical point. Flicker noise, or 1/f noise field with the dynamics of the critical state. This picture also yields insight into the ori



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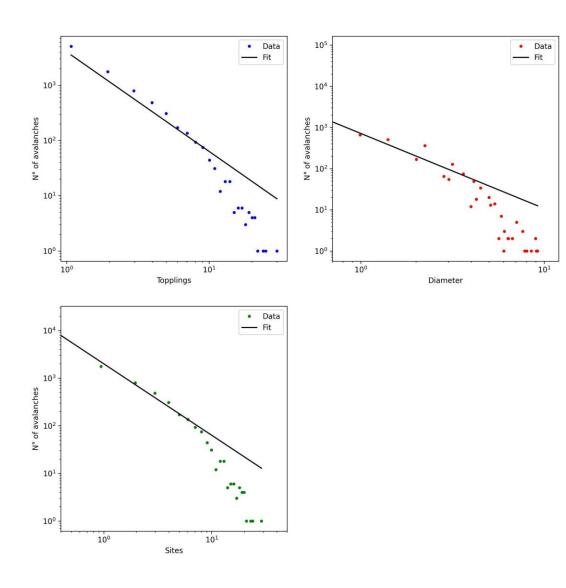
SIMULATION

- **■** *Numpy*
- MatPlotLib



ANALYSIS

■ LMFit



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