Avalanche Dynamics in Piles of Two Types of Sand

A. S. Elgazzar and E. Ahmed
Mathematics Department, Faculty of Science, Mansoura University, Mansoura 35516, Egypt

Z. Naturforsch. 53a, 928–930 (1998); received August 3, 1998

The avalanche statistics of some piles of two types of sand are studied theoretically. Both symmetrical and asymmetrical piles do not preserve the behaviour of self-organized critically. We suggest a distribution (we call it Fisher distribution) interpolating between fractal and Levy-Weibull distributions which describes these dynamics.

Reprint requests to Mr. A. S. Elgazzar, E-mail: sinfac@mum.mans.eun.eg