SCENARIOS OF LARGE EVENTS IN THE SANDPILE MODEL

A. B. Shapoval, M. G. Shnirman

International Institute of Earthquake Prediction Theory and Mathematical Geophysics, Russian Academy of Sciences, Moscow

In the sandpile model the quantity of events as function on their size decreases following a power law if events' size is not big. Large events do not satisfy the power law. Their fraction does not depend on the lattice length. The following two precursors result in prediction of the strong events. They are the growth of the total sand quantity in the lattice and clusterisation of the cells containing sufficiently many particles. Error diagram qualifies the precursors.