

Interplay between network structure and self-organized criticality

Prof. Janusz Holyst
Department of Physics
Warsaw University of Technology

Abstract:

An interplay between network structure and self-organized criticality has been studied. We investigated by numerical simulations how the avalanche dynamics of the Bak-Tang-Wiesenfeld (BTW) sandpile model can induce emergence of scale-free (SF) networks and how this emerging structure affects system dynamics.

P. Fronczak, A. Fronczak, and J. A. Holyst, Phys. Rev. E 73, 046117 (2006).