

## LANDSLIDES AND EARTHQUAKES – A COMPARISON FROM THE POINT OF VIEW OF MODELING

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The frequency–magnitude relations of landslides and earthquakes are both fractal and have nearly the same exponents. In the early 90's, the block–spring earthquake model of Burridge and Knopoff was linked with the self–organized criticality (SOC) concept by a cellular automaton approach of Olami, Feder, and Christensen (OFC model). We show that this model cannot be directly applied to landslide dynamics and present a modified approach. While the exponent of the earthquakes' frequency–magnitude relation depends on the mechanical parameters, our results indicate that the exponent of the landslide distribution may be universal.