



Seismic dynamics in advance and after mega-earthquakes

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We present the results of a systematic analysis of the observed seismic dynamics prior to and after the 1952 Kamchatka Mw9.0, 1957 Andreanoff Islands Mw9.1, 1960 Chile Mw9.5, 1964 Alaska Mw9.2, 2004 Sumatra-Andaman Mw9.3, and 2005 Nias Mw8.7 mega-earthquakes, which eventually manifest the extreme second-order phase transition in complex non-linear system of blocks-and-faults demonstrating common features of predictability along with diverse site-specific behaviors.