

Title:

Omori Law after Large-scale Destruction of Production Network

Speaker:

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Abstract:

After the two giant earthquakes, Kobe 1995 and East Japan 2011, a large-scale destruction took place on the supplier-customer network. These primary and exogenous shocks were propagated on the production network, which caused a secondary effect resulting in chained bankruptcies. By employing data of bankruptcies occurring in a neighbor to the primarily damaged firms or regional economy, we show that the number of neighboring failures obeys a kind of Omori law, a power-law relaxation. This finding implies that the recovery from such a huge shock on production network is much more sluggish than one can naively expect.