



Experimental study of the interactions among multi-patches on faults with different slip mode

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By analyzing the rock failure experiments with multi-patches on the parallel faults with the same and opposite slip direction, rock failure process is studied. Moreover, by analyzing the interaction among patches, we researched the physical mechanism that enhances or delays the occurrence of earthquakes in the tests. Results suggest that the interaction mode is to advance the time of occurrence of seismicity on the multi-patches with the opposite slip direction of the two faults and to delay the time of occurrence of seismicity on the multi-patches with the same slip direction of the faults. At last, the paper explains the different seismic activity characteristics in North China area and Cuan-Dian Diamond Block area in West-Southern China using the above experimental results.