

## Revisiting triggering intensity of earthquakes in southern California using recent seismic catalogs from 2008 to 2017

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We revisit the systematic increase of local seismicity rate as a function of the amplitude of the transient strain change, using more recent seismic catalogs and data in southern California from 2008 to 2017. The previous studies showed the relationship using data from the Advanced National Seismic System (ANSS) earthquake catalog from 1984 to 2009. For the seismicity in the last decade, a more high-quality seismicity catalog for southern California has been available. We also apply the waveform-based approach to reproduce the triggering ground velocity from the teleseismic events, while a ground motion was previously estimated by using  $M_s$  attenuation relationship with the ANSS catalog. These make possible a more precise spatiotemporal estimate of the areas susceptible to remote triggering. The relationship is successfully reproduced using new datasets that are independent of previous studies. In addition, the new method allows us to check a greater range of hypotheses about triggering including the frequency. Furthermore, we examine the temporal changes of the triggering intensity around the 2019 Ridgecrest earthquake area before its occurrence.

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