

Spatial and temporal change in b values on the fault plane of the 2016 Kumamoto earthquakes.

*Toshiki Shimbaru¹

1. Fukuoka Regional Headquarters, JMA

Since b values are known to be inversely dependent on differential stress (Scholz, 1968, 2015), the observed low b values in the epicenter area was interpreted as an indication of highly stressed area. This study visualized the spatial and temporal change in b values on the fault plane of the 2016 Kumamoto earthquakes. The result showed that zones of low b value near the epicenter of two events (M6.5 quake on April 14 and M7.3 quake on April 16) overlapped with the slip distribution estimated by the analysis of near-field data of strong ground motions. This is consistent with the result of Nanjo et al.(2012) on the case of the Tohoku Earthquake on March 11, 2011.

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