

## Detection state of stress at a fault from focal mechanism data ? application to Kego fault-

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One of the approaches used to evaluate the potential of an earthquake occurrence is the detection of the stress concentration at an earthquake fault. The stress fields for pre- and post-seismic event stages differ. However, this change cannot provide information regarding the potential for an earthquake to occur. Matsumoto et al. (2014) have proposed a detection method for states of stress that uses focal mechanism data of microearthquakes. The state of stress in this study can be defined by a moment tensor equivalent to the stress concentration normalized by differential stress. We apply this method to actual focal mechanism data from the 2005 Fukuoka earthquake and around the Kego fault, Kyushu, Japan, and discuss the presence of stress concentration around the earthquake fault before the mainshock.

Keywords: stress field, state of stress, focal mechanism, Kego fault