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Room:302

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Stress accumulation mechanism in and around the Atotsugawa fault: Effect of crustal heterogeneity

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First, to estimate the stress field in and around the Atotsugawa fault with higher spatial resolution than previous report (Katsumata et al., 2010), we added focal mechanisms for very small earthquakes.

Second, to explain the estimated stress field, we constructed a fault model using commercial finite element code ABAQUS which allows us to incorporate non-linear viscoelasticity and crustal heterogeneity. Considering remarkable change in the crustal structure, as well seen in the Bouguer anomaly, across the Atotsugawa fault, we systematically elaborated the effect of crustal heterogeneity on the stress accumulation rate on the Atotsugawa fault.

Keywords: Atotsugawa Fault, crustal heterogeneity, focal mechanism, stress field, FEM