

# Stone Density and Bouguer Anomaly around the Yamasaki fault

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We study the Bouguer anomaly and the Density of stones near and around the Yamasaki Fault, southwest Japan. We newly observed the stones from somewhat far regions around the fault. Our data together with the data from 1984 to 2002 show that the high Bouguer anomalies partly correlative to the stone density, which somehow relate to the distance from the fault.

Yamasaki fault lies mainly in Hyogo prefecture. The total length of it is more than 80 km. The Harima-Yamashiro Earthquake M7 occurred in this fault, while we have no M7 after this. But small earthquakes often occur along the fault.

We carried out the gravity measurement at about 500 points from 1984 to 1999 near and around the fault, and the Bouguer anomaly values show 0-20 mgal. The high values are partly very near the fault.

We tried to observe stones near and around the fault, to use for the terrain correction. Stone density also shows us some relationship with the epicenter distribution.