

Accumulation of gravity changes due to repeated fault motion for a viscoelastic earth

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Gravity anomaly around a fault reflects the history of fault activity. In other words, we expect the present gravity anomaly around a seismic fault can be express by summing up gravity changes due to each fault motion in the past.

When we deal with such a long time scale problem, we must regard crust (at least lower crust) as viscoelastic medium.

In this study, we develop Sun & Okubo's (1998) formulation for gravity change so that we may adequately take the viscoelasticity into account.