

## Gravimetric detection of high mobility fluid during the earthquake swarms off the eastern coast of Izu Peninsula

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We carried out absolute gravity measurements with a FG5 in Ito City since 1997. The measurements revealed (1) space-time variation of the local gravity caused by the 1997 and 1998 earthquake swarms off the eastern coast of Izu Peninsula, and (2) transient gravity changes in the early stage of 1998 earthquake swarm. We analyzed the gravity changes together with other geometrical geodetic measurements (GPS etc.) to model fluid movement in crust. The analysis of (1) shows that low density material filled in open cracks created by the earthquake swarm; we favor the hydro-thermal intrusion. The transient gravity changes in the early stage of earthquake swarm (2) strongly suggest the ascent of high mobility fluid to the source region.