

Change of Izu Ohshima GNSS height at 2012

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Takayama et. al.(2015) showed the change of GNSS height around Mt. Mihara. After that, all stations in Izu Ohshima is change in GNSS height at 2012.

On all stations in Izu Ohshima, we approximate GNSS height by line from 2009 to 2011 and after 2013. Rate after 2013 minus rate from 2009 to 2011 are the changes at 2012. These changes are large near north of caldera. They are small at north and south island.

We plot the changes against distance from north of caldera. We plot a rate of rise by Yamakawa-Mogi model of depth 5km on this graph. If we set 2.1×10^6 square meter per year, the changes coincide with the rate of rise by Yamakawa-Mogi model. This means that the rate of rise increases 2.1×10^6 square per meter at 2012.

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