

Precise hypocenters of the earthquake swarm off the east coast of Izu peninsula between 1995 and 1998.

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In previous study, we developed the new method of high-resolution relative hypocenter determination and applied to the 1998 off shore east of Izu peninsula earthquake swarm (Hayashi and Morita, 2001). Furthermore, we analyzed crustal deformation data derived by dense GPS network (Morita et al., 1998), and we developed earthquake swarm activity model with dike intrusion (Morita et al., 2001). Next step, we have to analyze another swarm activities which occurred at Izu region and another region to verify our model of earthquake swarm.

In this study, we re-examined the hypocenters of the earthquake swarms occurred in 1995, 1996 and 1997 at off shore east of Izu peninsula, central Japan. Because the waveform data recorded in these swarms are saturated in some stations of some earthquakes, we can not apply the complete same method of our previous study which harness the character of high waveform coherency. So we modified the technique of our method and applied to these data. In the result, we found out that these 3 swarms had same character of 1998 swarm, 1) The main part of the earthquake swarm was located on the single thin circular plane. The normal direction of the plane coincided with that of the tectonic extension. 2) Aseismic area existed at the center of the plane.