

Exploration of S-wave velocity structure of Ogasawara Iwo-To Island

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Ogasawara Iwo-To island is an active volcanic island which is located on the southernmost part of Izu-Ogasawara arc. Microtremors have been observed at two sites in the Ogasawara Iwo-To island, through observations performed on October 6-9, 2017, in order to investigate 1-D S-wave velocity structures. The circular-array microtremor data were recorded by 3 seismometers distributed along the circumferences of circle as well as a seismometer deployed in the center at two sites. Each microtremor observation site includes two arrays with different radii. The maximum radii of the equilateral triangles are 400m for the western site and 1240m for the northern site in the Ogasawara Iwo-To island. The phase velocities and the S-wave velocities of the subsurface structures down to a depth of several km were estimated at each site from the microtremor data by using the SPAC method.

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