



Earthquake Research Institute, The University of Tokyo
Address : 1-1-1 Yayoi, Bunkyo-ku, Tokyo 113-0032, Japan
<http://www.eri.u-tokyo.ac.jp/eng/>

Outline : Since its foundation in 1925, the mission of Earthquake Research Institute has been to promote research on earthquakes and volcanic eruptions and to develop methods for mitigating relevant disasters. This mission requires a comprehensive understanding of the dynamics of the Earth's interior which drives these phenomena. To achieve this goal, we have been promoting multi-disciplinary research of solid earth sciences, integrating field observations, laboratory experiments and theoretical studies. In order to develop a new movement in highly advanced solid earth sciences, we must make every endeavor to extend the frontiers of our research field through active interaction between researchers in and outside our country. In 2010, ERI was re-organized as a joint usage/research center of Japanese universities and strengthened the function as a core institute of the national research program for prediction of earthquakes and volcanic eruptions. We also continue to invite foreign visiting researchers to stimulate international research cooperation.

Research Areas :

Theoretical and monitoring geosciences, Earthquake and volcanic disaster mitigation, Earth and planetary materials sciences, Prediction research on earthquakes and volcano eruptions, Global-scale deformation and structure of the earth and High energy geophysics.

Features of Research Activities:

Cosmic-ray muon radiography can provide a cross section through an object parallel to the plane of the detector, on which the average density along all the muon paths is projected, somewhat like X-ray radiography. Our study of cosmic-ray muon radiography shows, for the first time, the degassing of a column of magma in Satsuma-Iwojima Volcano (Figure 1).

Ocean Bottom Cabled Seismometers (OBCS) is the best instrument to observe seismic activities on the sea floor because data is obtained in real-time. ERI has been developing a new compact OBCS system (Figure 2) to make a high density observation in the marine areas. The developed OBCS has small three accelerometers as a seismic sensor. The first OBCS system with a total cable length of 25 km and 4 observation nodes was installed in Japan Sea in end of August, 2010.

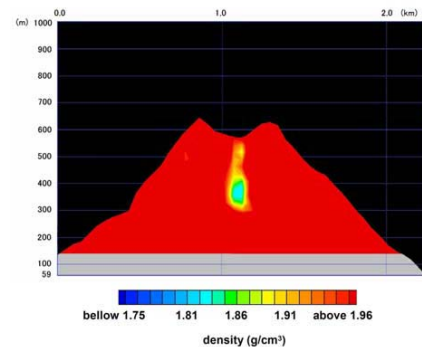


Figure 1



Figure 2