Analysis of seismic velocity structures using the data of 2004 Kuchierabujima volcano active seismic survey

# Keigo Yamamoto[1]; Masato Iguchi[2]; Takeshi Hashimoto[3]; Tomoki Tsutsui[4]; Satoru Tanaka[5]; Yosuke Aoki[6]; Shin'ya Onizawa[7]; Toshiki Watanabe[8]; Hiroshi Shimizu[9]; Takahiro Ohkura[10]; Hiroki Miyamachi[11]; Hiroshi Yakiwara[12]; Hideyuki Hiramatsu[13]


An active seismic survey was conducted in Kuchierabujima volcano during the period from October to November 2004, in order to clarify the subsurface structure beneath the volcano. 165 temporary seismic stations were operated to record the seismic waves excited from 19 chemical explosions using dynamite charges of 10-115 kg. From the observed travel time data, P-wave velocity structure is preliminary determined through the trial and error forward modeling. The maximum travel time residuals are about 0.1 second, suggesting the presence of smaller scale heterogeneity. In this presentation, we will show the three-dimensional seismic structure determined by using seismic tomography.