S053-P018 Time: May 26 17:15-18:45

Imaging of lower crust using reflection analysis for seismic exploration data (JARE-41) on the Mizuho Plateau, East Antarctica

Mikiya Yamashita[1], Hiroki Miyamachi[2], Masaki Kanao[3]

[1] Grad. Univ. Advanced Studies, [2] Earth and Environmental Sci., Kagoshima Univ., [3] NIPR http://www.nipr.ac.jp/

The 41st Japanese Antarctic Research Expedition conducted seismic exploration on the Mizuho Plateau, East Antarctica, in the austral summer season of 1999-2000. Shot records with clear later arrivals are obtained from this survey. The obtained seismic records show the clear onsets of the first arrivals in a distance range of less than 100 km from each large shot. In particular, seismic waves traveling through the ice sheet and the dispersed surface waves are distinctly observed. Some later phases are also detected.

We used reflection analysis (band-pass filter, static correction, Normal Move Out, Auto-gain-control) for only two shot records, and obtained single-fold section. The reflection profiling shows the several reflections around the Moho discontinuity. We discussed for the structure of lower crust and compared with the structure for the previous results.