

## Geophysical exploration with seismic interferometry(2) - Application of moving sources

# Takao Aizawa[1]; Kazuya Shiraishi[2]; Kyosuke Onishi[3]; Toshifumi Matsuoka[2]

[1] none; [2] Kyoto Univ; [3] Civil & Earth Res. Eng., Kyoto Univ.

The reflection response can be obtained by the cross-correlation of the transmission responses, which is called 'seismic interferometry'. The technique has a possibility to realize the seismic survey in low cost and at noisy area. We apply this technique to the field data observed by using several different seismic sources. In this paper, we introduce a result of the field examination done toward practical use of the seismic interferometry. Since this method requires a long length of seismic record, we developed a PC-based seismic recording system with 96 channels. This experimental survey was carried out in a hilly area which has two tunnels. We can acquire transmitted wavefield data generated by the sources moving in the tunnels. We obtained subsurface image of the hill by using the hitting type sources and also by truck running vibrations. Obtained subsurface images being properly data-processed are clear enough to estimate underground structures.