

Pseudo Shot Records by Seismic Interferometry with VLBI (2)

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We recorded seismogram of VLBI driving at GSI Head Office in April, 2012. Ito et. al. (2012) reported properties of pseudo shot records calculated from VLBI driving, earthquakes, and traffic noise by cross-correlation in the SSJ 2012 Fall Meeting. We report properties of stacked pseudo shot records by VLBI driving, earthquakes, and traffic noise, respectively.

We categorized the pseudo shot records by seeing the original waveforms. We did not use records including obviously two or three kinds of sources. However, we have to note that each record is not free from other sources.

We can see at least a sound wave, surface wave, and other events in T-component of the stacked pseudo shot record with VLBI driving. We also can see events in R-component of the stacked pseudo shot record with VLBI but relatively much poorer than in the T-component. In the stacked pseudo shot records with earthquakes, one H-component that is T-component of the VLBI driving is much better than another H-component that is R-component of the VLBI driving. The almost same results are obtained with traffic noise. The source locations of earthquakes and traffic noise are not considered at the survey line arrangement. In other words, the improvements of these two stacked pseudo shot records are caused by the unclear waveforms with VLBI driving. Therefore, we conclude that it is effective that pseudo shot records are made with T-components seismogram of VLBI driving.

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