

## Heterogeneities near the core-mantle boundary inferred from precursors to PKPdf waves recorded at Syowa Station

# Yoko Tono[1], Ichiro Nakanishi[2]

[1] Dept. Geophysics, Kyoto Univ, [2] Dept. Geophys., Kyoto Univ.

We analyze precursors to PKPdf from 32 vertical-component seismograms recorded by STS-1 at Syowa Station. Since the amplitudes of the precursors are small, we make a comparison of spectra between the precursors and background noise in order to distinguish the precursors from the noise. The comparison shows predominant frequencies of 0.5-2Hz for the precursors. The theoretical average power amplitudes are calculated for the scattering from the heterogeneities within a layer with thickness of 200km. The observed amplitudes are explained by the scatterers with scale lengths of 10-60km and rms velocity fluctuations of a few percent located near the core-mantle boundary beneath the northern part of East Antarctica.