

A seismic inversion study for incoming sedimentary sequence in the Nankai Trough, southwest Japan

Kazuya Naito^{1*}, Jin-Oh Park¹

¹Atmosphere and Ocean Research Institute, the University of Tokyo

The Nankai Trough, off southwest Japan, is a well known convergent margin on where huge earthquakes have been repeated in the cycle of 100–200 years. The next emergence of the disaster is concerned and many scientist have been studying to unveil and assess the dimension and mechanism of earthquakes and tsunamis. Here we show the physical properties distribution in incoming sedimentary sequence in the Nankai Trough. The seismic inversion technique is a method to estimate acoustic impedance of layers on seismic profiles with some drilling well data. We use 3D and 2D MCS profiles which acquired with KR06–02 and KR05–12 cruises and well data which drilled on the cruises of IODP Expedition 322 and 338.

Keywords: Nankai Trough, sediments, inversion, acoustic impedance, seismic reflection, Core-Logging-Seismic Integration