

NECESSArray, F-net データを用いて検出された、太平洋低速度領域西北縁における D'' 不連続面 D'' discontinuity in the northwestern edge of the Pacific Large Low-Velocity Province detected by NECESSArray and F-net

出原 光暉^{1*}, 田中 聡², 竹内 希¹, 川勝 均¹, 大林 政行², 宮川 幸治¹, 利根川 貴志², 入谷 良平¹, NECESSArray プロジェクトチーム¹

IDEHARA, Koki^{1*}, TANAKA, Satoru², TAKEUCHI, Nozomu¹, KAWAKATSU, Hitoshi¹, OBAYASHI, Masayuki², Koji Miyakawa¹, TONEGAWA, Takashi², IRITANI, Ryohei¹, NECESSArray Project Team¹

¹ 東京大学地震研究所, ² 海洋研究開発機構 地球内部ダイナミクス領域

¹ Earthquake Research Institute, University of Tokyo, ² IFRFEE, JAMSTEC

Broadband seismic recordings from the stations of NECESSArray and F-net are analyzed to investigate the shear-wave velocity discontinuity at the top of D'' layer across the northwestern edge of the Pacific Large Low-Shear-Velocity Province (LLSVP). In this study, we focus on the nature of the D'' discontinuity across the edge of the LLSVP by detecting a precursor to ScS phase at epicentral distances of 65o to 85o. Transverse component seismograms from earthquakes occurred in the Kermadec, Fiji, and Vanuatu regions are assembled and analyzed. Employing linear and phase-weighted vespagram (Schimmel and Paulssen, 1997), we identified a clear arrival with an arrival time and slowness between the S and ScS waves, indicating a reflected S wave from the D'' discontinuity.

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