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## Detection of non-volcanic deep low-frequency tremors recorded by the Horai seismic array, central Japan

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Non-volcanic deep low-frequency tremors (LFT) occur at regular intervals of about 4-6 months beneath the Tokai region, central Japan. We deployed a seismic array of short-period 3-component sensors at Horai near the Tokai tremor zone from September, 2008. We applied the zero-lag cross correlation method (ZLC) to LFT records in the period from February 5 to 15, 2009 to estimate the apparent velocities and back-azimuths of LFT. The LFT records were band-pass filtered and windowed with 2 sec windows to apply the ZLC. We obtained stable apparent velocities and back-azimuths for LFT, corresponding to the locations of deep low-frequency earthquakes detected by JMA.

Keywords: non-volcanic deep low-frequency tremor, non-volcanic deep low-frequency earthquake, seismic array, detection ability, cross-correlation, Philippine Sea plate