



Abstract Details

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Title: A study on the association of ionospheric perturbations with the earthquakes in Japan, as based on the JJY signal observation at Moshiri(Hokkaido)

Abstract:

The most promising candidate for the lithosphere-ionosphere coupling is the acoustic channel, and so we investigate the ionospheric perturbations along the path of the JJY signal(40[kHz]) (transmitted from the Fukushima prefecture) observed at Moshiri(Hokkaido) during the period of June to December 2003. We pay attention to the fluctuation in a period from minutes to a few hours in the LF data(amplitude and phase), and we investigate the power spectral density integrated over 10 minutes to 4 hours during the nighttime data. This integrated power spectral density in the frequency range of acoustic gravity wave, is compared with the temporal evolution of earthquake. Then, it is found that there seems to exist a correlation between two, giving a further support to the acoustic channel theory.

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