The detection of seasonal variation of incessant free oscillations

Kiwamu Nishida [1], Naoki Kobayashi [2]

[1] ERI, Univ. Tokyo, [2] Earth and Planetary Sci, TiTech

Recently some groups reported incessant free oscillations without earthquakes. The excited amplitudes are about 0.5 nano gal, and the frequency dependence is very weak. The statistical features of the excitation show the sources are durable disturbances on the whole Earth's surface. To explain the above features, the most possible mechanism is atmospheric excitation. The expected seasonal variation is too weak to detect. In this study we use 28 IRIS data from 1988 to 1997 to detect seasonal variation. As a resalt we suggest there are two local maximum around 0S28 and 0S38, amd the amplitudes of the local maximum vary with time. These resalts support the atmospheric excitation theory.