Estimate of the upper mantle anisotropy by inversion of eigenfrequencies of the earth's free oscillation

Makoto Hara[1], Hitoshi Oda[2]

[1] Earth Sci., Okayama Univ, [2] Dept. of Earth Sci., Okayama Univ.

An attempt is made to estimate heterogeneity and anisotropy of seismic velocity structure from free oscillation eigenfrequencies of the earth. A numerical experiment shows that it is possible to infer the heterogeneity and anisotropy of the structure by inversion of split eigenfrequencies. However the frequency inversion of high angular eigenmodes is problematic because the split eigenfrequencies are difficult to measure.