

## Effect of mantle anisotropy on free oscillation spectrum of the Earth

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We investigate the effect of seismic anisotropy of the mantle on free oscillation spectrum of the Earth. The anisotropy causes toroidal-spheroidal coupling, which is identified as toroidal peaks in the vertical component spectrum of the Earth's free oscillation. The heterogeneity of seismic velocity is also an origin of the toroidal-spheroidal coupling, but its effect on the spectrum is much smaller than that of the seismic anisotropy. Thus the coupling provides us with an important constraint to estimate the anisotropic structure of seismic velocity from free oscillation spectrum of the Earth.