

Spectrum of the heterogeneity in the mantle indicated by waveform inversion

Nozomu Takeuchi[1], Minoru Kobayashi[2]

[1] ERI, Univ. of Tokyo, [2] CCSE,JAERI

We are now trying to invert long period body waveform and surface waveform for detailed whole mantle structure. Previous studies use an approximation treating laterally heterogeneous structure as an infiniteesimal perturbation w.r.t. a spherical symmetric initial model (1st order Born approximation). In such methods the spectrum of the obtained heterogeneous structure should depend on the damping and smoothing. In this study we inspect how the obtained heterogeneous structure change for various damping and smoothing parameters.