

On the uniqueness of geoid-viscosity inversion: spherical 3D

Motoyuki Kido [1], Satoru Honda [2]

[1] ORI, Univ. Tokyo, [2] Dept. Earth Planet. Syst. Sci., Hiroshima Univ.

We investigated the uniqueness of geoid-viscosity inversion with seismic tomographic data as a input under 3D spherical geometry. Because there are many components in 3D geometry, morphology of the solution is much more simple in 3D than in 2D. However, the solution is averaged, and this results in having rather flat morphology, which make worse in the inversion. In turn, effect of uncertainty in the density data is very complex and we could not obtained any clear conclusion.