

Complex dynamic Green`s function to a sinusoidally oscillating point load for an anelastic earth

Daijiro Tsuji [1], Shuhei Okubo [2]

[1] E.R.I., Univ. of Tokyo, [2] Earthquake Res. Inst. , Univ. Tokyo

Deformation due to surface mass loads, such as the ocean tide, is evaluated through a convolution integral of the mass distribution with Green`s function, response of the earth to a point load .

In computing Green`s function, it has been conventional to assume a static ($w = 0$) point mass placed on a perfectly elastic, spherically symmetric earth.

Recent progress of accurate ocean tide model motivates up to refine Green`s function. We compute it to a sinusoidally oscillating ($w \neq 0$) point load placed on an anelastic, spherically symmetric earth.

We expect the Green`s function will play an important role when we analyse tidal records.