

Asymptotic solutions to the quasi-static spheroidal and toroidal deformation of the SNREI earth

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Asymptotic solutions to the quasi-static deformation of SNREI earth are essential to compute Green's functions, i.e., deformations due to a point load and a point dislocation. So far, only the surface deformations have been presented by previous authors. That is, internal stress/strain fields are not left uncalculated because of lack of asymptotic solutions to the internal deformation fields. In this talk, we present complete sets of spheroidal/toroidal deformations when spherical harmonic degree n increases to infinity.

Keywords: Internal elastic deformation, Green's function, SNREI earth, Asymptotic expansion