



Estimation of point explosion parameters by body-wave spectra

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Radial model of point explosion is presented. According to this model the epicenter are consists with two qualitatively different spherical area. In the first sphere the explosion energy is spent on plastic deformations. The second spherical area, where the medium are elastically, presents area where the body waves are generated. The frequency spectrum of this wave can presents the intrinsic frequency of natural oscillations of the point explosion. The Euler radial equation was used during the modeling of this process.

Using analytical equation of discrete frequency spectrum is possible to solve the inverse seismological problem. In other words it is possible to calculate the internal and external radius of elastic area. Finally we can obtain a sufficiently correct analytic solution to define the linear characteristics of the point explosion area and estimating the energy released.