



Wave propagation in multilayered media: the radiative transfer approach

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In the present study, the wave propagation problem in disordered multilayered media is considered. Several models of the radiative transfer, previously published in the papers (O'Doherty-Anstey formula etc.), are compared to each other. Techniques for retrieval of the physically meaningful parameters of the medium, including average mechanical loss in the medium and geometrical and structural parameters of the layered structure, are proposed. Extensive numerical tests with wide variety of the medium parameters have been performed, and the limits of applicability of all the considered models are established. Some particular applications of the developed techniques in geophysics and exploration are discussed.

References.

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