

A Study on Parameter Setting for Deformation Characteristics for Dynamic Ground Response Analysis

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A dynamic ground response analysis has been used in practice as a recommended method for seismic design of railway structures in Japan. The GHE-S model, which can precisely reproduce the deformation characteristics of soils from small to large shear strain levels, is applied to the analyses. The parameters of the GHE-S model are usually set by designers according to the deformation characteristics obtained from laboratory tests. Therefore, the accuracy of the analysis is greatly dependent on how the parameters are set and how the deformation characteristics are obtained. Consequently, this paper examines how to, set up the deformation characteristics of soils in a ground response analysis.