

عنوان مقاله:

An analytical solution for determination of site dominant period in frequency domain

محل انتشار:

سومین کنفرانس بین المللی پژوهشهای کاربردی در مهندسی عمران، معماری و مدیریت شهری (سال: 1394)

تعداد صفحات اصل مقاله: 8

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خلاصه مقاله:

One of the soil properties which is significantly affects the response of a given site during the occurrence of an earthquake is the dominant period. Estimation of this parameter of soil profiles has been the subject of numerous studies. In this paper, four separated damped and undamped soil profiles that are located on rigid or elastic bedrock, for obtaining the dominant period are considered. For each case, an amplification function based on solution of wave equation in frequencydomain is derived. Furthermore, in two cases the results were compared with frequencydomain analysis by DEEPSOIL. The results indicate that dominant period of undamped uniform soil profile is independent to type of bed-rock which is located on it. Also the dominant period in damped soil profile is different with undamped soil profile

کلمات کلیدی:

Dominant period, Amplification function, Soil profiles, Frequency domain

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<https://civilica.com/doc/493052>

