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作　　者	楊世緯 [國立中央大學地球物理研究所] 顏銀桐 [中興工程顧問社] 馬國鳳 [國立中央大學地球物理研究所] (通訊作者)
中文題目	利用經驗格林函數法驗證強地動衰減式
英文題目	Validation of Seismic Attenuation Curve from Ground Motion Prediction of Using Empirical Green
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摘要	Taiwanis situated in the western portion of the circum-Pacific seismic belt. In the northeastern Taiwan, the Philippine Sea plate is subducted below the Eurasian plate along the Ryukyu trench. The large subduction-zone earthquakes occurring here can inflict a severe loss on life and property, especially for a populated metropolitan area such as Taipei City. Youngs et al. (1997) categorized the subduction-zone earthquakes into two groups: Interplate earthquakes and Intraplate earthquakes. A interplate earthquake is an event occurring at the interface between the subducting and overriding plates with a shallow thrust angle, whereas intraplate earthquake occurs within the subducting oceanic plate. The much longer recurrence interval and higher stress drop of intraplate events generally result in the stronger ground motion regardless its relative deeper focal depth. In probabilistic seismic hazard analysis, a ground-motion attenuation curve is one of the most important parameter, which can help us predict the ground-motion values. In this study, we classified the past events within local magnitude (M_L) larger than 6.0 in northern Taiwan, and used Empirical Green's functions methodwhich utilizing ground motionsof actual small-events as Green's functions rather than theoretical Green's functions to simulate the full spectra of the waveforms. These simulation were used to give the comparison to the existing attenuation curves to validate the attenuation relationships for inter- and intra- plates earthquake with full spectra. In order to objectively estimate the ratios of fault dimension (N) and stress drop (C) of large to small events, the source spectral fitting method (Miyake et al.,1999) is used. The synthetic waveform and spectrum are thus obtained with C and N values to assess the theoretical PGA values and verify the present ground-motion attenuation curve.
中文關鍵字	經驗格林函數
英文關鍵字	Empirical Green's Function