

عنوان مقاله:

EARTHQUAKE RESPONSE SPECTRA FLUCTUATIONS: THE CONNECTION TO LOCAL SPATIAL VARIATION

محل انتشار:

سومین کنفرانس بین المللی زلزله شناسی و مهندسی زلزله (سال: 1378)

تعداد صفحات اصل مقاله: 12

نویسنده:

ERIK H. VANMARCKE - *Department of Civil Engineering and Operations Research Princeton University, Princeton, NJ 08544, USA*

خلاصه مقاله:

We present methodology of stochastic earthquake ground motion modeling that accounts for the inherent variability of the ordinates of Fourier amplitude spectra, peak motion amplitudes and response spectra stemming from the limited duration of motion. A major component of the variability of peak ground motion amplitudes, shown to be related to the fluctuations of response spectra, proves to be analytically tractable in terms of the square of the ground motion spectral density function $G(w)$ and the duration of strong shaking so. Data from dense accelerograph arrays indicates that this component of ground motion uncertainty also reflects the inherent spatial variability of ground motion parameters at different points within a "local field", in which the properties of the ground motion are nominally the same while varying significantly from point to point, and to which one might assign a (single value of) Mercalli Intensity after an earthquake

کلمات کلیدی:

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/1290316>

