

Calibration of Site Effect Parameters in the GMPM BSSA 14 for the Region of Spain

Authors : Gonzalez Carlos, Martinez Fransisco

Abstract : The creation of a seismic prediction model that considers all the regional variations and perfectly adjusts its results to the response spectra is very complicated. To achieve statistically acceptable results, it is necessary to process a sufficiently robust data set, and even if high efficiencies are achieved, this model will only work properly in this region. However, when using it in other regions, differences are found due to different parameters that have not been calibrated to other regions, such as the site effect. The fact that impedance contrasts, as well as other factors belonging to the site, have a great influence on the local response is well known, which is why this work, using the residual method, is intended to establish a regional calibration of the corresponding parameters site effect for the Spain region in the global GMPM BSSA 14.

Keywords : GMPM, seismic prediction equations, residual method, response spectra, impedance contrast

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