

MODELLING OF SEISMIC EFFECTS IN SANTIAGO DE CUBA CITY FROM EARTHQUAKES IN ORIENTE FAULT

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We present the results of complete P-SV and SH waves modelling, up to a maximum of 1 Hz, along two profiles in Santiago de Cuba city. The sources are located on the Oriente fault zone, at distances of 40 Km and 80 Km, respectively from the profiles, and at a depth of 30 Km. The calculation was made by a hybrid method: modal summation in the regional anelastic model (one-dimensional) where the source is buried, and finite differences for the local sedimentary anelastic models (two-dimensional). The analysis of the influence of the depth and of the distance of the source on the site effects shows that standard traditional methods, based on the deconvolution analysis of the rock outcrop can lead to very erroneous results.