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Discussions

Umesh Chandra
Ebasco Services, Greensboro, NC

Discussion by Umesh Chandra,
Sr. Principal Seismologist,
Ebasco Services, Greensboro, NC
on "On Surface Waves in a Gibson Half-space" by I. Vardoulakis and V. Dougalis.

The main conclusion of this paper is that for Rayleigh-type and transverse surface waves in a Gibson half-space, under the assumption requiring the displacement field to be square-integrable on $(0, \infty)$, which corresponds to finite elastic energy of the traveling wave front, a discrete spectrum yielding polynomial eigen-functions is obtained. You state that these polynomial solutions are the only physically meaningful ones. This physical significance is described as the "layer effect". Could you describe this layer effect in some detail. In the half-space model with linearly increasing shear modulus, no assumption of any discrete layers is involved.

Discussion by Umesh Chandra,
on "Seismic Response of Subsurface Ground with use of Measured Underground Acceleration" by Iwaski, Kawashima and Takagi.

At the Kannonzaki site records for six earthquakes were obtained. Why only five cases are displayed in Figure 1 (3).

It seems that no vertical record was triggered at Futtsu Cape from the earthquake of August 4, 1974, and at Kannonzaki from the earthquake of December 4, 1972. Is that correct?

Despite the availability of very small amounts of data, in the study of frequency response function, you have used records for only three earthquakes at Ukishima Park (although four earthquakes were recorded) and four earthquakes at Kannonzaki (although six earthquakes were recorded). No analysis of frequency response function of vertical component records is reported for Kannonzaki and no such study is reported for Futtsu Cape although records for five earthquakes were triggered at this site.

In Figures 6 and 7 you have made a comparison between the recorded and computed underground accelerograms for N-S component of ground motion for the earthquake of May 9, 1974. Did you also make a comparison between the recorded and computed accelerograms at the Futtsu Cape site?

Discussion by Umesh Chandra,
on "Analysis of Stresses in Seismically Induced Shallow Slope Failures" by L.E. Vallejo and L.M. Peszek.

On pg. 553, the term γ is defined as the unit weight of the soil forming the slope. Please clarify the meaning of "unit weight" as used here.

In this analysis seismic effect has been treated as a static load. Have you also considered the dynamic case?