Natural Hazards
and Earth System
Sciences

Open Access

EGU

Discussions

Interactive comment on "The analysis of H/V curve from different ellipticity retrieval technique for a single 3c-station recording" *by* Irfan Ullah and Renato Luiz Prado

Anonymous Referee #2

Received and published: 30 January 2017

The paper entitled ""The analysis of H/V curve from different ellipticity technique for a single 3c-station recording" (by Ullah & Prado), deals with the comparison of H/V spectral ratio from various techniques with the ellipticity curve for a selected pilot borehole site at Sao Paolo, Brasil. The manuscript could be published in the Journal NHESS only after the following remarks/suggestions are taken into account.

General Remarks 1. After the comparison of the H/V spectral ratio from different techniques (time frequency, microtremors, DFA etc.) with the borehole ellipticity, the authors conclude that the time-frequency and RayDec show better results in replicating the left and right part of the borehole ellipticity curve. In turn, they indirectly claim that the joint inversion of H/V spectral ratio curve and dispersion curve of Rayleigh waves

should provide better estimate of the velocity structure of the borehole when using the time-frequency and RayDec techniques. I would suggest to the authors: (a) based on the results of all applied H/V techniques and (b) using the same dispersion curve of the pilot borehole site, to estimate the Vs profile of the borehole for the different H/V curves. Then to compare the various inverted profiles with that provided in Figure 5, in order to show the validity of their conclusion.

2. Several references are provided in the manuscript but do not appear in the References chapter (see in attached .pdf)

Specific Remarks Some orthographic or/and syntax errors are given in the attached .pdf.

Please also note the supplement to this comment:
http://www.nat-hazards-earth-syst-sci-discuss.net/nhess-2016-370/nhess-2016-370-RC2-supplement.pdf

Interactive comment on Nat. Hazards Earth Syst. Sci. Discuss., doi:10.5194/nhess-2016-370, 2016.