

This study presents a compilation of mostly existing site information in search of reference sites in Greece. It collects some important site data which are crucial for many downstream studies, serving as an important dataset for Greece and the international community. The manuscript is relatively well written, and I enjoyed reading it very much. Most of the information here is collected from existing sources, in my view, additional efforts could be devoted to uniformly deriving some extra information, e.g., empirical site response, site kappa, and topographic parameters, to render the dataset even more valuable. The following are my specific comments:

Major comments:

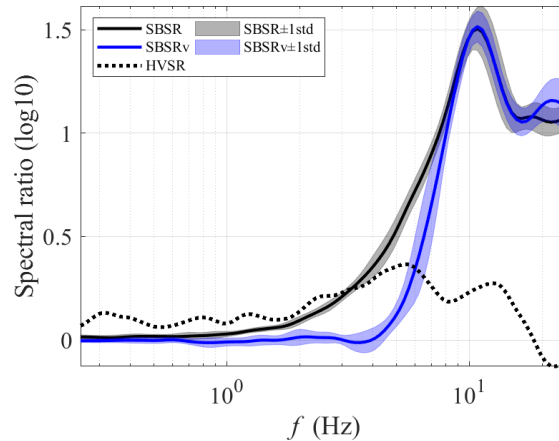
1. GIT or ΔS_2S site response: since waveforms are available, why don't the authors derive site response from observations using either generalized inversion or residual analysis to the median prediction from a ground motion model (GMM)? These two techniques are equivalent and can give same results when the same constraints are applied. Though reference sites need to be assumed, it can be used as the average site response over all sites in the dataset. Consequently, the resulting site responses are relative to this condition. However, in my view, these observed (relative) site responses carry the most important information in terms of reference site selection. A good reference site shall exhibit smooth change in amplitude with frequency, thus teasing out sites with significant resonance (with clear peaks or troughs).

Though HVSR is used here, it is well known, and is clearly pointed out by the authors, that HVSR only approximates (horizontal) site response at frequency range where there is no significant vertical site response. However, we know as little in which frequency range that vertical site response is negligible at a specific site, as the horizontal site response.

Thus, it is valid that: a good reference \rightarrow flat HVSR over broad frequency range, however, invalid: flat HVSR \rightarrow a good reference. I just provide one real example (KiK-net site) below. The HVSR seems to be relatively flat, which is because the horizontal peak is canceled by the vertical.

Therefore, I suggest the authors to consider using GIT or residual analysis to derive empirical (relative) site response to complement HVSR, as did Lanzano et al. (2020).

For this very reason, consider to use "Earthquake HVSR" directly, rather than 'Transfer Function' as section title. The former is clearer to readers.



2. Site kappa: likewise, given available waveforms, I think site kappa can be another source of information for site selection. Please consider deriving site kappa at these sites.
3. Data availability: I strongly suggest providing the information in various tables in the paper in a single flatfile (e.g., csv) as electronic supplemental materials, which will greatly facilitate the use of these results by end users. Ideally, only symbols in the table header that are readable to machines can be used such that the table can be read directly by computers.
4. On HVSr computation: it is mentioned that the two horizontal components are combined as the square root of the sum of squares, rather than the root-mean-squares. Thus, would HVSr be unity, or $\sqrt{2}$, even at perfect rock sites? This is important for the following statements in Line 150.
5. Table 4: some sites lack topographic data, i.e., slope. Their topographic data can be readily derived from openly available DEM. I suggest the authors devote some efforts to deriving them.

Minor comments:

1. Line 225: S1 should be A1?

I am happy to waive my anonymity.

Best regards,
Chuanbin