

Interactive comment on “Seismic attenuation and dispersion in poroelastic media with fractures of variable aperture distributions” by Simón Lissa et al.

Anonymous Referee #2

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Review of “Seismic attenuation and dispersion in poroelastic media with fractures of variable aperture distributions” by Simón Lissa, Nicolás D. Barbosa, J. Germán Rubino, and Beatriz Quintal

Dear editor, Dear authors,

The manuscript entitled "Seismic attenuation and dispersion in poroelastic media with fractures of variable aperture distributions " studies the effects of fractures with variable aperture distributions on the seismic attenuation and dispersion.

The authors present several examples where the seismic attenuation and dispersion are computed numerically for material having regular and random aperture distributions.

They discuss the effects on the attenuation of geometrical attributes such as contact area density and correlation length. Following this, the authors discuss the possible usage of analytical models to predict the attenuation and the dispersion in fractured media. They show that simple models can be employed to accurately model materials with relatively complex aperture distributions.

For the most part, the manuscript is Comprehensive and well organized, though confusing at times (see the annotated .pdf). I think it is of interest for the reader of “journal Solid Earth” and would make an interesting contribution.

My main concern is the rather partial and incomplete referencing, there are important references in the field that are missing.

I think the manuscript could be published after carefully addressing the comments in the annotated .pdf.

With Kind regards

Please also note the supplement to this comment:

<https://www.solid-earth-discuss.net/se-2019-18/se-2019-18-RC2-supplement.pdf>

Interactive comment on Solid Earth Discuss., <https://doi.org/10.5194/se-2019-18>, 2019.

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Discussion paper

