

Interactive comment on “Seismicity characterization of oceanic earthquakes in the Mexican territory” by Quetzalcoatl Rodríguez-Pérez et al.

Anonymous Referee #2

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The topic of the oceanic seismicity in the Mexican territory is interesting and worth studying. The paper presents a careful study of the seismicity, classification of focal mechanisms, magnitude-frequency distributions and stress conditions in individual sub-regions of the area. The following comments can help to improve the revised version of the paper.

Major comments

1. The authors should include more information about their stress inversion results. Namely, I miss plots of the focal sphere with the P/T axes and with the optimum positions of the principal stress axes for individual sub-regions. Similarly, it would be

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interesting to show the Mohr's circle diagrams and focal sphere plots showing the principal stress axes with their uncertainties for individual sub-regions. All these plots are produced by the STRESSINVERSE code used by the authors. If it is too much to include all plot into the main paper, some of them can be included in the supplement.

2. The Discussion section should be compacted. The authors should discuss only the most interesting and relevant issues. The discussion should mostly be devoted to their results but not to providing an extensive review of results of other authors. The review of previously published results should be in the Introduction section and not repeated again in the Discussion section.

Minor comments

1. The paper needs some minor improvements of English, see the attached annotated manuscript.

2. Units of quantities in tables should be specified (e.g. M_0 in Table 1, SH_{max} in Table 4).

3. Some other minor suggestions are indicated in the annotated manuscript.

Please also note the supplement to this comment:

<https://www.solid-earth-discuss.net/se-2019-180/se-2019-180-RC2-supplement.pdf>

Interactive comment on Solid Earth Discuss., <https://doi.org/10.5194/se-2019-180>, 2020.

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