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Natural Hazards and Earth System Sciences
Discussions

Interactive comment on "Earthquake and hurricane coupling is ascertained by ground-based laser interferometer and satellite observing techniques" *by* M. N. Dubrov et al.

Anonymous Referee #2

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The manuscript aims at assessing a positive correlation between the occurrence of hurricanes and strong earthquakes. Moreover the manuscript claims that pressure drop that is generated by powerful hurricanes might be the triggering cause of strong earthquakes. The authors claims that present-day technology such as ground based laser interferometers and satellite observations allow one to actually confirm the coupling between hurricanes and strong earthquakes. The hypothesis behind this manuscript is scientifically interesting and deserves to be investigated further. But I am afraid, I had a difficult time in reading the manuscript because of the poor quality of the English (I know the authors are not native English Speakers and I imagine that they have made

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significant effort to translate their research). In the manuscript, I had a difficult time in finding a quantitative analysis about the claimed hurricane/earthquake coupling; the manuscript is too qualitative to support the statements. A sentence like “In particular the deformation (tilt and strain) precursors are often accompanied by the peculiar tremor precursors, which are known as a reducing of micro-seismic and acoustic noise background before earthquakes – quite similar as calm before the storm” is not supported by any material in this manuscript (instrumental or bibliographic). The use of “quite similar to” belongs to a personal note or a working report, not to a scientific publication. The use of “calm before the storm” is a popular saying and does not belong to the scientific vocabulary of a modern manuscript. The images and graphs are not self-explanatory; they are not very clear. It is very difficult to read them and find sound evidences in support to the manuscript claims. The legends do not help in the full understanding of the figures.

In conclusions, even though the measurements are sound and the observations highlighted in this manuscript deserve further (quantitative) investigations, the manuscript itself is not mature enough to be published in NHESS.

Follows some (of the many) imprecise statements that weaken the manuscript.

Yaroshevich, 2010. This reference is incomplete. Trubitsyn et al., 1976 looks like a conference proceeding; I can not really veridy the content of this study. Page 938, line 29. The authors write about a “strong remote earthquake M = 8.1 in the southern hemisphere”; this is a very imprecise information. The authors should provide the date and the location of the earthquake. Also, “M” should be “Mw”.

Interactive comment on Nat. Hazards Earth Syst. Sci. Discuss., 2, 935, 2014.