

Solid Earth Discuss., referee comment RC1
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Comment on se-2021-25

Valerio de Rubeis (Referee)

Referee comment on "COVID-19 lockdown effects on the seismic recordings in Central America" by Mario Arroyo-Solórzano et al., Solid Earth Discuss.,
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The paper applies the methods of a previous interesting analysis on the perception of seismicity both from an instrumental point of view and from the perception of citizens during the lockdown period due to Covid-19. The analyzed data are in favor of an effective difference in instrumental and human perception between the period during the lockdown and the previous one. Although the analysis is interesting, the method of analysis is extremely simple: in essence it merely shows the difference in average values. There is no in-depth statistical analysis, nor are there any statistical tests to quantitatively support the results. Since these are anthropogenic effects on seismicity detection, there is no in-depth analysis of the anthropic component. For example, the population density map is appreciated, but why not introduce the numerical values of the aforementioned density to normalize the data of the stations?

To demonstrate the increase in the number of earthquakes detected as a function of magnitude, why not present the b-value graphs before and during the L.D.? I believe that the work deserves on the one hand a satisfactory quantitative statistical analysis, on the other hand a reduction of the text which is, in my opinion, too verbose. Minor corrections are highlighted in the attached pdf file.

Please also note the supplement to this comment:

<https://se.copernicus.org/preprints/se-2021-25/se-2021-25-RC1-supplement.pdf>