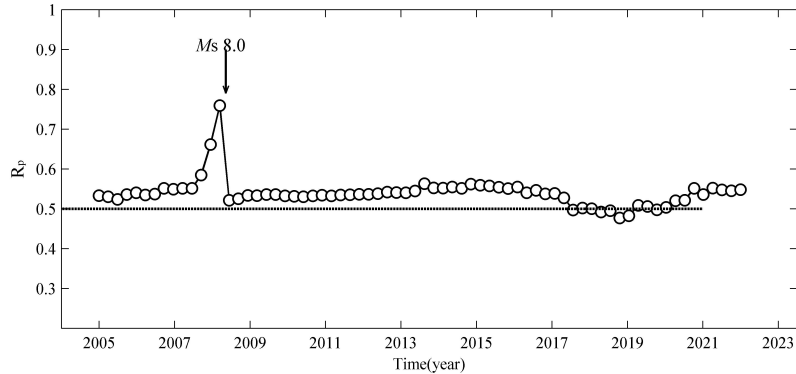


Reply to Anonymous Referee #1

We have to say thanks to Anonymous Referee #1 for the comments.

1. Whether  $R_p$  get stabilized after the occurrence of earthquake have to be included in the manuscript, since the authors have discussed only one major earthquake.

Reply: We calculated the proportion  $R_p$  of the seismic strain release for PEQs ( $2.5 \leq M_L \leq 4.0$ ) that occurred from 2000 to 2021, applying a moving 5-year time window moved by 3 months. The result is shown below in the figure.



$R_p$  vs. time A moving 5-year time window moved by 3 months.

2. In page number 13, line number 246, it was mentioned that Fig. 5d, but it is not available in the manuscript. It should be Fig. 4d.

Reply: We will revise it.

3. The author needs to explain the following, otherwise the manuscript merely observed the changes in the release of seismic release pattern.

a. In page number 8, line number 164 - 167, the author has mentioned two categories of earthquakes, PEQs and NEQs. The author needs to provide table showing PEQs and NEQs with corresponding tidal stress and seismic strain release, either in manuscript or as a supplementary file.

Reply: We will add those data in manuscript.

b. In page number 11 & 12, line number 220 - 225, the author has mentioned that seismic strain accelerated when  $k_p$  and  $k_n$  increases and it is mentioned that  $k_n$  start decreasing from 2005 onwards, Why and how NEQs inhibits the release of strain has to explained.

Reply: When the stress in the focal region is close to a critical condition to release a large rupture, the tidal stress could take effect on the occurrence of earthquakes. The increasing tidal stress will promote the occurrence of earthquakes, making  $k_p$  increase. While the decreasing tidal stress will inhibit the occurrence of earthquakes, making  $k_n$  decrease. So, it is the decreasing tidal stress to inhibit the release of strain for NEQs.

