

**TGEI-2022-0602 - [View Abstract](#)**

PSInSAR and well based on the law of material conservation between land surface pressure and ground water to observe land subsidence

---



**\*Do you want to get recognition for this review on [Publons](#)?**

**Don't let your reviewing work go unnoticed!** Researchers the world over use Publons to effortlessly track their valuable peer review contributions for any journal. If you opt in, your Publons profile will automatically be updated to show a verified record of this review in full compliance with the journal's review policy. If you don't have a Publons profile, you will be prompted to create a free account. [Learn more about Publons](#)

Yes

No

---

**By reviewing this manuscript, you agree for your review comments to be seen confidentially by editors of other related Taylor & Francis journals if the manuscript is rejected and subsequently transferred. This supports a system of portable peer review.**

As a thank you and to acknowledge the contribution of our reviewers, the journal may publish a list of the names of those who have reviewed at the end of the year. This will not be linked to any specific paper and will only be done if the list of reviewers is long enough to protect the anonymity of the review process for individual papers. If you would prefer for your name **not to be included** in a published list of reviewers, please indicate this below.

Do not include my name

**\* Do you have any conflict of interest to declare?** Yes No**If yes, please provide details below:**

---

**Would you be willing to review a revision of this manuscript?** Yes No**\* Recommendation** Accept Minor Revision Major Revision Reject & Resubmit Reject**Confidential Comments to the Editors****\* Comments to the Author**

The manuscript titled "PSInSAR and well based on the law of material conservation between land surface pressure and groundwater to observe land subsidence" focuses on the PSInSAR method from Sentinel-1 data combined with GNSS data and subsidence monitoring wells to determine land subsidence in Yokohama Japan. - The Abstract of the paper only presents the research method and accuracy of subsidence determination by PSInSAR and subsidence observation wells but does not present information related to the study area, the type of image to be processed or the period of the image using PSInSAR. Besides, it is also necessary to mention what the image processing tool is, in the case of this article is SAPROZ... - When representing subsidence from PSInSAR, you should overlay GNSS points and subsidence observation wells to see the position of such points from PSInSAR compared to the points from two other methods at suitable positions or not. - Because you want

to prove that using the PSInSAR method ensures accuracy and can replace the method of subsidence observation wells, you need to explain more clearly that there is a correlation between the two subsidence monitoring results. Besides using RMSE, it is reasonable to use a scatter plot and use a linear function to demonstrate that the subsidence result from PSInSAR is satisfactory. - In Tables 4 and 5 comparing subsidence results from PSInSAR, GNSS methods, and subsidence observation wells, I noticed that the subsidence values determined from PSInSAR are very small, the point with the largest subsidence is only 0.7mm while for GNSS method or subsidence observation well method varies from 0.1mm to 12.8mm. You say that the deviation between the two PSInSAR methods and the subsidence observation wells on the page 21st is "The RMSEs of each observation point was 0.372 cm/year for Yokohama city, 0.357 cm/year for Yokosuka city, and 0.720 cm/year for Miura city, which shows the good agreement." Do you find it unreasonable that the subsidence value from PSInSAR is nearly 10 times smaller than the RMSE error between the two methods? your subsidence determination made from PSInSAR already has some systematic error related to the atmosphere or a factor that you haven't found yet. Because the subsidence value made from PSInSAR is so small. It's so small that it is just an error due to the measurements, thus comparison with the subsidence observation well method is not reasonable. You should use additional images and reprocess this time series of images to determine subsidence from PSInSAR and then compare with subsidence observation wells again. - - The mean subsidence value of 0.1cm for PSInSAR is not correct, check again because all subsidence points are less than 0.07cm (Table 5) - In terms of presentation, some figures are very blurry and it is difficult to recognize the words on them such as in Figure 8,9. Some figures need additional units for the colour scale, such as figure 6. In addition, it is also necessary to note whether this subsidence is vertical subsidence or in the line of sight direction. - The explanation about the depth of the well and the related subsidence should be presented more clearly, the sentence is confused so it is difficult for the reader to understand. To see each correlation between water level lowering and subsidence using PSInSAR, the author should evaluate the correlation between them. - Equation 3 needs to be fully annotated the parameters - Finally, I think you should check your English grammar and sentences very carefully. Conclusion: Major revision