

Comments on egusphere-2023-1711

The manuscript is well written accompanied by appropriate figures and tables. It fits to EGU sphere. I recommend its publication subject to some minor polishing. I hope the authors will find my remarks, listed below, helpful.

GIA: Add a few more words about this phenomenon. You could add in the Sec. "Introduction" some lines explaining the GIA in Patagonia and why this process is important to this study.

I would like to see somewhat more "discernible" conclusions. Consider splitting the "Discussion" section from the "Conclusion" section.

The manuscript reevaluates the GIA contribution to vertical land motion in the Patagonia, but... there is no mention of the ice model that used to calculate the displacements. Furthermore, in the manuscript there is no reference to where the rates, due to the GIA, come from. How were they calculated? What code did you use? You wrote it? Did you get it from literature? Explain better, perhaps expanding the Numerical model section.

LGM starts from 26000 years Before Present, not 20000.

Also, how did you calculate the *yield strength* ($\Delta\sigma$)? What code did you use? How does it work? Do lithospheric strength values depend on strain rates? Or the thermal regime? Or even by the thickness of the crust? Explain better.

Fig. 2. ---> explain yield strength profile in Discussion section.

l293-l294: the regional asthenosphere viscosity was estimated..... and satellite observations. What does this phrase mean? Consider rephrasing this sentence.

Minor style picks:

l17: ~20000 ----> ~26000 years ago

It is appropriate to write BP (Before Present) when talking about large temporal periods

(Think of it as a hint)

166: 38 to 55 S ----> 38° to 55° S

178: What does "approximately" mean? You need to be more specific

1303: ~20000 ----> ~26000 years ago (Check all parts carefully where is written "20000")