

Interactive comment on “Climatic variability in Princess Elizabeth Land (East Antarctica) over the last 350 years” by Alexey A. Ekaykin et al.

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The short comment of Thomas Laepple supports the major comment by Dmitry Divine pointing out the underestimated uncertainty of the correlation between the smoothed series. By a simple test Thomas demonstrates how a false correlation may appear in the smoothed series.

I conducted similar test that confirmed the Thomas's conclusions. According to my calculations, the probability to get correlation coefficient = 0.66 between two random 52-year rows smoothed with a 27-year filter is 27 %. However, we should also take into account that the PEL2016 series is a stack of 2-5 individual series (see Figure 5a). If we take this into account in the tests, then the probability to get occasionally $r = 0.66$ is reduced to 17 %, but still it means that the observed correlation between

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PEL2016 and the instrumental temperature record is insignificant. Thus I will make the corresponding changes in the manuscript (see also the answer to Reviewer 1).

I will also clearly indicate a poor correlation between our climate reconstruction and the previous reconstructions. This finding underline the fact that our ability to reconstruct the past climate on the centennial time-scale based on ice core data is very limited.

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