

Clim. Past Discuss., referee comment RC2
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Comment on cp-2021-183

Anonymous Referee #2

Referee comment on "Millennial variability of terrigenous transport to the central–southern Peruvian margin during the last deglaciation (18–13 kyr BP)" by Marco Yseki et al., Clim. Past Discuss., <https://doi.org/10.5194/cp-2021-183-RC2>, 2022

The manuscript presents new grain size and FRX analyses for two marine sediment cores of the Peru coast. Besides the marine sediment cores, the authors analyzed some modern samples collected close to the core sites. By comparing the Ti/Zr ratio and the end member analysis for the grain size distribution, they could depict the contribution of fluvial and aeolian sediments to the core-site. Thus, they relate the changes in sediment supply to changes in precipitation and surface windy intensity. The use of modern samples increases the reliability of the proxy interpretation. They present new paleoclimatic information for an important region of South America.

Overall, the manuscript is clear and well writing and the data support the discussion and the conclusion. The mechanisms presented are in accordance with the literature, and the manuscript fits the scope of CP.

Minor changes could improve the quality of the text, and besides the suggestions made by RC1, which I totally agree with, below there are some suggestions:

- Authors could present a distribution map for the surface samples stations.
- In methods, they mention the de ^{14}C analyses were performed in bulk samples, but they did not mention if the organic matter or carbonate were dated, since they use the delta R to calibrate, I assume that they have dated the carbonates of the sample. But it should be mentioned, and why they chose to date the bulk sample and not just specific forams e.g.
- In topic 3.4, the authors could better explore the XRF result, which is very important to support the end members. Ideally, the results section should not present interpretation,

and as it stands, this topic only presents the interpretation of changes in fluvial discharge.

- Line 23: change the font after 77 to symbol, from "u" to "m".
- Line 41: Overturning is misspelled.
- Line 85: "the" is missing before "other".
- Line 96: I suggest using the past tense.
- Line 138: add "s" after "period" and remove "d" from calibrated.
- Line 185: review the use of the word "such"
- Line 193: offshore is misspelled
- Line 240: "the" is missing before "abundance"
- Line 333-334: remove the sentence: "SST proxies indicate an indicate an increase of the zonal"
- Line 344: change "process" to "processes"
- Line 353: it is Pisco instead of Callao.
- Line 371: "the" missing before "North"