

Nonlin. Processes Geophys. Discuss., referee comment RC1
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Comment on npg-2021-7

Anonymous Referee #1

Referee comment on "Comparing estimation techniques for temporal scaling in palaeoclimate time series" by Raphaël Hébert et al., Nonlin. Processes Geophys. Discuss., <https://doi.org/10.5194/npg-2021-7-RC1>, 2021

The paper by Hebert et al "Comparing estimation techniques for timescale-dependent scaling of climate variability in paleoclimatic time series" studies temporal scaling of paleodata using various techniques and simulated data with non-equidistant time step. The paper is well written and can be accepted after a minor revision, according to the following comments.

The title should be changed to "Comparing estimation techniques for temporal scaling in paleoclimatic time series".

The following R package could be added as a reference and possibly as a tested tool:

<https://www.atmosp.physics.utoronto.ca/people/vyushin/mysoftware.html>

It would be useful to add a list of acronyms in the beginning of the paper.

I think the following paper should be added to references: Detecting long-range correlations with detrended fluctuation analysis, JW Kantelhardt, E Koscielny-Bunde, HHA Rego, S Havlin, A Bunde, Physica A: Statistical Mechanics and its Applications 295 (3-4), 441-454 (2001)

It would be good to define what the authors mean by "quazi-Gaussian" (line 86).

In lines 33, 438, 479, the surnames should be corrected.

For ensemble averages, instead of symbols $<$ and $>$ it is better to use \langle and \rangle

In line 356, it is not clear what database is meant.

In line 468, "Nature Climate Change" is typed twice.

In line 490, remove `&ndash`

In line 507, change the titles from capital letters