Dear Daniel,

Thank you for your swift answer. We have made the corrections as suggested and submitted the revised manuscript. We have summarized below the additions we made in response to the corrections you suggested.

Best wishes,
Raphaël on behalf of the authors

Editor Decision: Publish subject to technical corrections (24 May 2021) by Daniel Schertzer
Comments to the Author:
Dear Raphael,

I am pleased to conclude the discussion of your paper "Comparing estimation techniques for temporal scaling in paleoclimate time series" with the decision that the revised version should be published with (possible) technical corrections.
For instance, as you know it, "K(q) is zero for Gaussian processes" (line 80) is rather restrictive since it is only a particular case of uni/mono-fractal processes, although this is one of the most celebrated and studied cases. This also applies to the few places where the term "quasi-Gaussian" appears.

We clarified this by saying that "K(q) is zero for some monofractal processes such as the well-studied Gaussian case, and thus, for these specific cases, all statistical moments scale similarly." on line 80-82.
We also rewrote two instances of "the quasi-Gaussian case" as "the (monofractal) quasi-Gaussian case" on line 91 and line 180.

In relation with your exchange with referee#2 on the importance of intermittency in paleoclimate data, it would be fair to cite Schmitt et al (1995) the first time you mention this problem (line 95), not only in the Discussion section.

We added the reference there and mentioned the multifractality of timeseries on glacial-interglacial timescales. Line 95-97 of the revised manuscript.

I also noted a common oversimplification in Eq.4, because there is in fact a proportionality constant between the power spectrum and the squared Fourier transform (in fact a Dirac function at infinite resolution, the number of points if finite).

This has been corrected by dividing by the temporal coverage of the series. We also made a small correction in the periodogram estimate, multiplying by the resolution to ensure the non-dimensionality of the exponential argument.

Sincerely Yours,

Daniel Schertzer (NPG Executive Editor)