

Interactive comment on “Late quaternary temperature variability described as abrupt transitions on a $1/f$ noise background” by M. Rypdal and K. Rypdal

M. Crucifix (Editor)

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I would like to thank the authors for their detailed response to the reviewers and editors comments. They are now encouraged to submit a revised version that will be further commented on by the reviewers. The quality of the discussion so far provides encouraging prospects towards a positive outcome to this submission.

The first paragraph of my Editor's comment was supposed to synthesise the reviewers point of view. After reading the author's reply I must acknowledge having introduced a number of shortcuts that need to be corrected. This is the objective of the following clarifications.

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(a) It is correct that neither the original manuscript, nor the reviewer #2's comment explicitly mention the process of 'adding' signals. It was indeed an interpretation of mine that as soon as one chooses to consider, separately, the noises characterising stadial and interstadial conditions, we implicitly view the record as the superposition of transition dynamics and a noise process, and this interpretation contrasts with the framework recommended by Reviewer #2. The authors have replied to that.

(b) It is correct that (quasi-)Gaussian framework and linearity do not imply each other, even though they are often associated. Reviewer #2 made a case that the authors' framework could be interpreted as a reference to quasi-Gaussian process, which this reviewer was seeing as an inadequate characterisation of the signal. The authors have replied to this criticism.

(c) Finally, it is correct that the Reviewer #2 does not actually criticise the wavelet transform as such. My comment resulted from an unfortunate shift in the chain of arguments. The authors indeed use valid methods for characterising the power spectrum, and reviewer #2 rather worried about whether the power spectrum was as sufficient characterisation of scaling regimes. Again, the authors have replied to this criticism.

In addition, to word 'weather' introduced in my original comment must be read 'whether'

M. Crucifix.

Interactive comment on Earth Syst. Dynam. Discuss., 6, 2323, 2015.

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