

## ***Interactive comment on “Standardized flux seasonality metrics: A companion dataset for FLUXNET annual product” by Linqing Yang and Asko Noormets***

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Received and published: 16 January 2021

The authors offer an important dataset to the ESS community. By processing FLUXNET data to characterize the seasonality of fluxes at more than 200 sites across the planet, the authors have provided a benchmark dataset comparable to the land surface phenology datasets produced from MODIS and VIIRS time series. Moreover, the authors have taken care to investigate the robustness of their estimates obtained from seasonality modeling through resampling statistics on the one hand and alternative flux partitioning techniques on the other. I expect that these data will find many willing users.

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The narrative is concise and well-written, but I do have a few minor edits and comments.

line 9: is it really high accuracy or rather high precision?

lines 29-30: you may want to include here a highly relevant publication that appeared after you submitted this manuscript:

Weltzin, J.F., Betancourt, J.L., Cook, B.I., Crimmins, T.M., Enquist, C.A., Gerst, M.D., Gross, J.E., Henebry, G.M., Hufft, R.A., Kenney, M.A. and Kimball, J.S., 2020. Seasonality of biological and physical systems as indicators of climatic variation and change. *Climatic Change*, 163(4), pp.1755-1771.

line 49: “compared” is more accurate than “truthed” since these approaches are looking at related but distinct processes.

line 68: update “in prep”?

line 89: I think that “same phenomenon” is more precise description than “truth” here

line 104: of course, abscission occurs in only a subset of these land covers and sites

line 114: citation needed for Grubbs’ Test

line 229: decode MDS (or is this related to FSMD?)

line 270: This what? It is not clear to what the isolated relative pronoun points.

line 304: update “in prep”?

line 316: this use of “metadata” is odd and misleading. Try instead “latent features”.

line 327: omit “satellites”

with the archived data, the docx file is named “Instrucations” and should be in pdf rather than Word.

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Interactive comment on Earth Syst. Sci. Data Discuss., <https://doi.org/10.5194/essd-2020-58>, 2020.

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