Nonlinear Processes in Geophysics Manuscript ID: EGUSPHERE-2023-2368

Dear Dr. Zoltan Toth, dear Reviewer,

We thank the editor, Dr. Zoltan Toth, for the helpful comments in the revised version of the paper. We additionally thank the reviewer for reading and evaluating our manuscript.

We highlight the editor comments in *blue italics*. We highlight the changes and additions we made to the manuscript in **bold font**.

1. In your response to Rev. 2's question about the current title "Learning Vegetation Response to Climate Drivers and Extremes with Recurrent Neural Networks" you indicate that "extreme" refers to "vegetation response". The current title does not reflect that. Would "Identifying Extreme Vegetation Response to Climate Drivers with Recurrent Neural Networks", or something similar be more expressive? This may be a shorter, more to the point title?

We agree that the title could be misunderstood, and we appreciate the suggestion for its modification. We feel that changing it to **Learning Extreme Vegetation Response to Climate Drivers with Recurrent Neural Networks** better reflects the contents of the manuscript, while also being unambiguous.

2. In response to Rev. 2's 3rd comment, you introduced the term "fold" in Appendix B2. This word is not defined and sounds like jargon. Can you please define "fold" before its first use, or possibly replace with a more commonly used / self-explanatory expression?

Thank you for pointing out the use of *fold* without a proper introduction to it. We have added some more explanation to the temporal cross-validation technique used and the meaning of the terminology in Lines 508-510:

In this technique, the training data is subdivided into smaller sections of increasing length, called folds. Each fold contains both training and testing data, with a chosen split between them.

We look forward to hearing from you. Sincerely and on behalf of all authors,

Francesco Martinuzzi

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