

Saturday, 22 February 2025

Skillful neural network predictions of Saharan dust  
Trish E. Nowak, Andy T. Augousti, Benno I. Simmons, and Stefan Sieger  
Pre-print: <https://doi.org/10.48550/arXiv.2406.11754>



Dear Prof. Tost and the Editorial Team,

We would like to thank you for the comments included in this round of the revision process. These will inadvertently improve the quality of our manuscript.

Please find below our point-by-point response to your suggestions, along with a list of all relevant changes made.

We trust that these revisions adequately address your comments and contribute to an enhanced, more clearly organised manuscript. We appreciate your constructive feedback and the opportunity to improve our work.

Thank you for your time and consideration.

Sincerely,

A handwritten signature in black ink, appearing to read 'Trish Nowak'.

**Trish Nowak - on behalf of all the authors**

PhD Candidate

UKRI CDT in Environmental Intelligence: Data Science & AI for Sustainable Futures

University of Exeter

<https://mathematics.exeter.ac.uk/staff/pn284>

### Editors comments:

Dear authors,

Even though the reviewers comments are mainly answered, and some changes to the text are included, I think that the manuscript needs a substantial restructuring, i.e., at the moment the Methods Section comes after the Results and Discussion. This might be a typical style for a publication in Nature, but does not follow the typical GMD publication style. Consequently, please change the manuscript layout, such that it contains after the Introduction a section on Data and Methods. Afterwards please present your results; this also includes a better separation of what is a result and what is a method. This does not become clear in the current manuscript style. Furthermore, some parts of the Methods section also include some discussions such that also here the separation of pure methodology versus discussion of results needs to be sharpened.

At the moment, the manuscript is missing a Conclusion / Summary section. As some readers would like to get the main message of the paper only, please provide such a section.

After the structural and conceptual overhaul of the manuscript a publication might become possible.

### Authors response:

We would like to kindly thank the editors for their constructive comments. Below we have included the point-by-point responses to each of the comments raised.

## 1. Manuscript Layout and Structure

- **Change Implemented:** We have restructured the manuscript so that after the Introduction, a dedicated "Data and Methods" section now follows. This aligns the format with the typical GMD publication style, as indicated in the GMD's LaTeX template.

## 2. Separation Between Methods and Results

- **Change Implemented:** We have revised the Methods section to exclusively detail the data acquisition and analytical procedures. Any discussions or interpretations that were previously included with the methods have now been moved to the Results section.

## 3. Addition of a Conclusion/Summary Section

- **Change Implemented:** We have added a new Conclusions section at the end of the manuscript. Here, we succinctly outline the main findings and implications of our study. This should provide a clear takeaway for readers that seek the core message of the paper.

## 4. In-Text Citation Formatting

- **Change Implemented:** All in-text citations have been reformatted to follow the prescribed GMD style (name, followed by date) instead of using numerical citations. We ensured the compliance with GMD's submission guidelines as detailed on the journal's website and the LaTeX manuscript template.

## 5. Supplementary Material

- **Change Implemented:** The supplementary material was extracted from the main manuscript file and uploaded as a separate .zip file. In addition, the file has been renamed according to GMD's standards.