

Peer Review

# Review of: "Spatiotemporal Forecasting in Climate Data Using EOFs and Machine Learning Models: A Case Study in Chile"

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## Review Comments for Improvement:

**Workflow Visualization:** A flowchart or diagram illustrating the end-to-end process (EOFs → wavelet decomposition → ML forecasting → reconstruction) would clarify the methodology.

**Data Preprocessing Gaps:** No mention of handling missing data, outliers, or normalization steps. This omission raises concerns about data robustness.

**Parameter Justification:** Critical parameters (e.g., 10 wavelet levels, 40 hidden neurons) are stated without justification. Include ablation studies or citations.

**Practical Impact:** Link outcomes to real-world applications (e.g., water management case studies) to emphasize societal relevance.

**EOF Limitations:** Expand on EOFs' lack of physical interpretability and how this impacts forecasts (e.g., misalignment with climatic processes).

## Declarations

**Potential competing interests:** No potential competing interests to declare.