

We would like to thank the reviewers for careful consideration of our work and for providing thoughtful feedback that has improved the quality of the manuscript in many ways, including the documentation, the detail and value of the examples, and the clarity of the discussion about automatic differentiation. We have numbered the comments from each reviewer below. Responses are in blue with quoted text from the new tracked-changes manuscript in *italics* with associated line numbers.

Juan Antonio Añel:

1. I would like to note that the term "open-source" used by the authors here is commercial terminology, which does not correspond to the academic nature of the scientific work. The more correct terminology to refer in the text to the model would be a free software or a FLOSS model. This argument is backed by the fact that the authors release it under the Apache v2.0 license, which is widely defined as a free software license by the Apache Foundation.

Original Text: JCM is an open-source, differentiable atmospheric model built in Python using the JAX numerical library.

Updated Text (abstract): *“JCM is a differentiable atmospheric model that is built in Python with the JAX numerical library and is released under a free and open-source software (FOSS) license.”*