Dear Authors,

Thank your very much for your comments and developments in response to the reviewer reports, and for taking into consideration the preliminary editorial recommendations made prior to the Interactive Discussion stage.

After careful consideration of the manuscript, the reviewer reports and the author comments, an editorial decision can now be formulated.

Overall, the scientific questions addressed in the manuscript are relevant to the interdisciplinary scope of Earth System Dynamics, and significant efforts have been made by the authors in addressing such questions in their submitted work.

Albeit its good merits, the manuscript would benefit from further clarification and revision in order to address the pertinent concerns raised during the peer-review process.

In this regard, the diligences conducted in response to the reviewers are already an encouraging step forward. These should thus proceed towards addressing the raised concerns and further strengthening the arguments of the paper.

Key aspects debated at the Interactive Discussion are also encouraged to be incorporated in the revised manuscript. In fact, some questions raised by the reviewers could also arise among the broader readership, and the author responses provide good grounds to further elaborate and substantiate their claims in the revised manuscript.

In order to provide enough time for a careful revision further harnessing the valuable potential of this manuscript, my decision entails “major revisions”.

I will be looking forward to the revised manuscript.

With very best wishes,

Rui Perdigão
(ESD Editor)