Dear authors,

Thank your very much for your comments and developments in response to the reviewer reports.

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

However, the manuscript would considerably benefit from further elaboration, clarification and revision in order to address the concerns raised in the peer-review process.

In this regard, the diligences conducted in response to the reviewers are already an encouraging step forward.

At this stage, the authors are then encouraged to proceed with their review efforts, with particular emphasis on the reviewer recommendations.

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)