

## **Response to the editor's comments**

*We thank the editor for his careful “pre-review” and hope to have clarified all points raised. The changes made have been highlighted in the corresponding sections.*

### **Point 1:**

Following the reviewer's and editor's advice, we added an explanation to the Method section. We tried to be as clear as possible, and hope that our approach is more comprehensible now. Figure captions have been adopted accordingly.

### **Point 2:**

The editor points out that “variability is a composite of accelerated long term forcing and actual interannual variability, it is not purely interannual variability”. The same argument holds for the non-accelerated simulations as well as for any other transient forcing. It is therefore important that the time scale of internal variability is clearly separated from the time scale of the external forcing. We revised the corresponding paragraph in the Discussion section and hope that our argument has become clearer now.

### **Point 3:**

We added a cautionary note to the Discussion section pointing out a potential role of initialization in Fig. 12 as suggested by the reviewer.

### **Point 4:**

We take the editor's point (based on the reviewer's suggestion) and added a concluding statement in the Conclusions section, highlighting again the importance of initialization.