

Dear GMD editorial team:

We thank the reviewers for taking the effort to read our manuscript a second time.

This *Response to reviewers* file provides a complete documentation of the changes made in response to reviewer 1's comments. Reviewers' comments are shown in plain text. Author responses are shown in bold green text. Corrections within the revised manuscript are shown in blue text. All line numbers in this file refer to locations in the revised manuscript with changes marked unless indicated otherwise.

Reviewer 1

The methodology outlined in the article is a useful tool for the community and I believe that the authors have sufficiently addressed the points brought up during the revision process. I recommend that it is accepted after some minor technical changes (noted below).

Technical Points:

L14: "Furthermore, the new bootstrap technique provides with a..." should read "Furthermore, the new bootstrap techniques provides a..." or "Furthermore, the new bootstrap techniques provides us with..."

L31: "...which allow to estimate..." should read "... which allow for the estimation..." or "... which allow us to estimate..."

L177: "...time series Equation (3)..." I believe there should be a period here. "...time series. Equation (3)..."

L407: "... which provides with a conservative..." should read "... which provide a conservative..." or "... which provide us with a conservative..."

L421: "...does not change much the results..." should read "...does not change the results much..."

L474: "...to provide with..." should read "...to provide..."

L478: "...PPI uncertainties are difficult to interpreted..." It should be interpret.

L515: "...although providing with..." The with should be removed.

We thank the reviewer for noting this points. We have addressed all of them in the new version of the manuscript.