

Editor Decision: Publish subject to technical corrections (11 Oct 2016)

by Dr. Zoltan Toth

Comments to the Author:

Dear Authors,

Thank you for the careful revision of your manuscript. I find most of your responses appropriate and helpful to the readers. I would like to ask that before your manuscript is published, you address the following three items.

1) I find your response to the first two elements under Rev. comment 2a - "2a. The authors' response", and "For the LETKF" clear and to the point. Would you please incorporate the response you gave to the Rev., along with the new references, at the appropriate place into the manuscript, for the benefit of the readers?

Sure, we've added the text in the appropriate Results section.

2) Your addition to the text - "As the system size increases the probability of such an event declines" - is helpful. The statement, however, may not be trivial. Could you please add a brief qualitative explanation / motivation for this statement?

A brief explanation has been provided.

3) As for your responses: "We now address this point at the end of section 2.4. Page 10, lines 27-32." and "We also refer to this discussion in presenting the results. Page 14, lines 1-3." - the latter point refers this text on p. 14:

"Further, when examining the computational cost of the LPF versus LETKF, the relative costs reflect the analytical assessment given above in section 2.5. " I wonder if there is an error or typo here as the text on p.14 refers to section 2.5, not 2.4 where your main response is. Please check the text and section/page/line numbers and correct the text if/as necessary.

This was not meant to be a continuation of the newly added discussion. We've removed the word "Further" to avoid that implication. This brief paragraph is only referencing the computational cost.

With the above changes your manuscript will be ready for publication in NPG. Your approach, as pointed out by the Revs, may open promising new directions. Congratulations to your interesting study. I hope you will consider NPG for publishing results from your future research.

Zoltan Toth