

Nonlin. Processes Geophys. Discuss., author comment AC3  
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## Reply on RC2

Chu-Chun Chang and Eugenia Kalnay

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Author comment on "Applying prior correlations for ensemble-based spatial localization"  
by Chu-Chun Chang and Eugenia Kalnay, Nonlin. Processes Geophys. Discuss.,  
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We are very grateful to the reviewer for well understanding our method and for providing many constructive comments, including the comparison to Anderson's work, and applications to special grids and location-varying observations. These comments are very insightful and helpful in improving our manuscript.

In the revised paper, we not only improved the clarification of the method and settings, and also incorporated some of the reviewer's comments in the manuscript. We greatly appreciate these helpful comments!

Please find the **detailed response to the questions in the supplement**.

Please also note the supplement to this comment:

<https://npg.copernicus.org/preprints/npg-2022-5/npg-2022-5-AC3-supplement.pdf>