

## ***Interactive comment on “On the interconnections among major climate modes and their common driving factors” by Xinnong Pan et al.***

**Xinnong Pan et al.**

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We sincerely appreciate the reviewer's helpful and insightful comments. We tried our best to revise our manuscript accordingly. This referee had common comments with referee #1. Therefore, to avoid simply duplicating responses, we kindly ask the referee to consult out reply to referee #1.

As we reply to the first referee, varying the embedding dimension provides a sensitivity analysis to show the robustness of our results. We also provided results from an ideal model to demonstrate the effectiveness of the technique of combining SFA with wavelet analysis. The significant peak-periods of SFA signals can reflect the true driving force factors very well. However, we note that other methods may be developed to quantify

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the uncertainties of the peak periods in future studies. As for the physical/dynamical mechanisms, we have expanded our discussion in the end of our manuscript.

This is a relatively new area of research and more insights we hope will be forthcoming in future work.

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Interactive comment on Earth Syst. Dynam. Discuss., <https://doi.org/10.5194/esd-2019-74>, 2019.

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