

## ***Interactive comment on “Unraveling the spatial diversity of Indian precipitation teleconnections via nonlinear multi-scale approach” by Jürgen Kurths et al.***

### **Anonymous Referee #2**

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This paper introduces a nonlinear, multiscale approach, based on wavelets and event synchronization, for unraveling teleconnection influences on precipitation. The results suggest significant nonlinear influences which are not well captured by the wavelet coherence analysis, the state-of-the-art method in understanding linkages at multiple time scales. The results provide an exciting perspective for capturing the dynamics of precipitation and improving precipitation forecasting. In addition, the substantial variation of precipitation teleconnections across India and across time scales that is unraveled by the proposed method provides an exciting perspective for rainfall forecasting for India and for making better sense of its weather. The analysis is very interesting and the results are insightful. The paper is well written and I would like to recommend the

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publication of this paper once the following minor points can be addressed:

1) The Z-P space approach should be given some basic descriptions in this paper to help readers understand this paper conveniently. 2) In the Event synchronization and network construction part, 95% threshold is chosen. I think a simple description should be given to the choice criterion.

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