

## ***Interactive comment on “Technical Note: Partial wavelet coherency for improved understanding of scale-specific and localized bivariate relationships in geosciences” by Wei Hu and Bing Si***

### **Anonymous Referee #1**

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In this paper, the authors mainly developed a partial wavelet coherency method, for identifying the relationship between variables. It is an important issue but also a difficult problem for geo-data analysis, and the method developed would be helpful for the data analysis in geosciences. The following comments are suggested to be considered for further improving the paper: (1) In lines 108-110: the “sufficient number” should be clarified, as it has a big influence on the uncertainty estimation, that is, what number is sufficient? Furthermore, the reason of using first-order autocorrelation coefficient for MC simulation should be explained and discussed. (2) Lines 121-122, some theoretical lines can be provided to show the difference between Eq. (9) and Eq. (14). (3) Regarding the structure, is it more suitable to reorganize the Section 3 and 4, that is,

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the artificial data and their results are analyzed and discussed in Section 3, while those of real data are analyzed and discussed in Section 4?

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