

## ***Interactive comment on “Analysis of surface soil moisture patterns in agricultural landscapes using empirical orthogonal functions” by W. Korres et al.***

### **Anonymous Referee #4**

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#### General Comments

I think this paper is essentially ready to go. The data are valuable, the analysis is well-reasoned, and the results are interesting. The authors should be commended for producing such a solid manuscript for review.

#### Major Issues

I noticed that previous reviewers have suggested a stronger set of objectives. I found the introduction to be sufficient, but I agree that the lack of a clear set of objectives affects the discussion and conclusions, which lack some focus. I would encourage the authors to streamline those sections to meet clearer objectives. The conclusions in

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particular could be sharper.

Also, the visualizations of the EOFs in the figures are not ideal. It is difficult quickly gain a sense of the patterns based on the plotting method. While I lack a better idea about how to plot them, the authors may wish to reconsider their plotting method or to consider color renderings. Overall, however, these are relatively minor issues that should not affect eventual publication.

#### Minor Issues

The authors use Moran's I, which is not a very widely-used method in my opinion. Some brief description about this approach and a citation would be appropriate.

When comparing/contrasting with the results of Tarrawarra, the authors suggest that the differences might arise from a lack of adequate measurements under dry conditions. Tarrawarra has a strongly seasonal climate, which is inconsistent with the cases considered here. The authors may be referring to this difference in the text (it is a little vague), but I suspect this is the key reason for the difference. They may wish to clarify.

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