

## ***Interactive comment on “Using Moran’s I and GIS to study spatial pattern of forest litter carbon density in typical subtropical region, China” by W. J. Fu et al.***

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This manuscript is generally clearly written, the length is appropriate for the amount of novel content and the conclusions are consistent with the results. I have two major comments on the ms.

1) I felt there was a lack of a strong argument for the need to describe spatial patterns in forest litter. In particular, it’s not clear to me how Moran’s I, and the nugget and sill from variograms will help inform management for high litter storage. To me it looks like these analyses have been included not because there is a strong theoretical reason for it, but because the data are suited to this and one of the authors has expertise in these

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analyses. To avoid this impression it would be good for the authors to provide concrete arguments for including these analyses in the abstract and first paragraph of the intro.

2) The authors note that “the definition of weight function, data transformation, and existence of extreme values” affect Moran’s I, and that “these factors were taken into consideration in order to obtain reliable and stable results”. However, I didn’t see any details on how this was done. They mention a Box-Cox transformation, which I suppose takes care of the extreme values, but what about the other factors? How did they choose their weight function? How do we know what effect this choice had on results.

Once these comments have been addressed, I think this article will make a useful contribution to the literature on carbon storage in forest litter.

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**BGD**

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