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Dear Associate Editor/Editor,

We are submitting the manuscript entitled “**An Index for Quantifying Geometric Point Disorder in Geospatial Applications**” to be considered for publication in *Computers & Geosciences*.

Geometric order, such as the curvilinear gridding of an orchard as opposed to the random placement of a natural forest stand, represents an additional dimension in geospatial analysis that can be used in pattern recognition and classification problems. Yet, there are few methods for quantifying the geometric “orderedness” of coordinate data such as point sets. Though the inherent order of crops, orchards, planned building developments, and other anthropogenic structures makes such features immediately differentiable from natural structures to the human eye, limited work has been done to describe methods for the quantification of this phenomenon.

The manuscript describes a novel metric, the Index of Disorder (IoD), and an associated algorithm, for quantifying the geometric disorder present in geospatial point datasets. This study applies the algorithm to synthetic and natural data to evaluate its ability to differentiate ordered and disordered points. We have found that the IoD can indeed distinguish between ordered and disordered points, and that the IoD has potential applications in forestry and urban planning among other fields.

This paper (or closely related research) has not been published or accepted for publication. No other papers using the same data set have been published.

We appreciate the opportunity to publish our work in *Computers & Geosciences*.

Sincerely,



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