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Interactive Comment

Interactive comment on "Validation of the k-filtering technique for a signal composed of random phase plane waves and non-random coherent structures" by O. W. Roberts et al.

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I thank the authors for their corrections. For me, the paper is now suitable for publication. A few corrections could however still be added, but I let to the authors the responsability of doing them. I mention here only three of them:

- In the definition of "coherent structure" that has been added, the reader is told about some characteristics of them, duration and spacing, that are related only to the word "structure", but there is no reference to the notion of "coherence", which is more intriguing. Instead of "intermittent magnetic field signature", one could say for instance:

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"a coherent wave packet, i.e. a coherent signal windowed by an envelop of limited extension". With, maybe the additional note: "two coherent structures are generally incoherent with each other".

- I think the paragraph about the "advection" of the structures is still misleading (and useless, in my opinion). First, the explanations only refer to Alfven structures (when comparing the bulk velocity to the Alfven speed and when evoking the Alfven vortices). All existing fluctuations are not Alfvenic. Second, the explanations don't make any difference between the parallel and the perpendicular propagations, which should be important, in particular for Alfvenic fluctuations.
- The conclusions could be made clearer by adding a little word for linking the two parts of this conclusion, which can appear contradictory at first sight: 1) incoherence is required; 2) "Nevertheless", incoherence can result from a set of coherent structures.

Interactive comment on Geosci. Instrum. Method. Data Syst. Discuss., 4, 435, 2014.

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