Hydrol. Earth Syst. Sci. Discuss., doi:10.5194/hess-2016-92-SC1, 2016 © Author(s) 2016. CC-BY 3.0 License.



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Interactive comment

## Interactive comment on "Incorporation of globally available datasets into the cosmic-ray neutron probe method for estimating field scale soil water content" by W. A. Avery et al.

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Received and published: 28 April 2016

As the lead author of the original footprint paper (Desilets and Zreda, 2013) let me point out that the values given by Kohli et al. (2015) are not necessarily comparable to our own. This is due to a basic but highly significant conceptual difference underlying the papers.

In our 2013 paper we integrate a point source over circular rings, and then integrate rings to derive a footprint. This contrasts with Kohli et al. who integrate a point source over a line to derive a footprint. Clearly these two "footprints" do not represent the same thing. The differences between the footprints (along with their various dependencies) have probably been overstated, as has the root cause of these differences in model

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Discussion paper



physics.

Given the unclarity in how one should derive an areal sample plan out of the line integral given by Kohli et. al., it is my view that the current paper has followed the best available practice. This practice has proved remarkably effective in other publisher works, and should not be an obstacle to the publication of this article.

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., doi:10.5194/hess-2016-92, 2016.

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