

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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In order to clarify the situation of the current footprint discussion, the authors of both footprint models jointly investigated and discussed the issues raised in the last short comment. **Finally, we came to the conclusion that the approaches to integrate neutron intensity used by Desilets and Zreda (2013) and Köhli et al. (2015) are identical**, as the sensitivity function W_r in the latter denotes a ring intensity in units of $[1/T/L]$. Further, we agreed on that the different results from our two works have yet to be fully tested. We are now jointly working on to quantify the impact of differing model assumptions by a dedicated model comparison and experimental setups.

We support the general conclusion of the gained reviews, that the manuscript from
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Avery et al. makes an important contribution to the field of mobile CRNS sensing. Furthermore, we think that the issue of the exact footprint definition is of minor importance with respect to the methodological approaches for mobile calibration as presented in the manuscript. It is our opinion that the use of a sampling strategy which has proven to be sufficient in the past should not be a major obstacle to the publication in the present.

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