Hydrol. Earth Syst. Sci. Discuss., 5, S2676-S2677, 2009

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Interactive Comment

Interactive comment on "Significance of tree roots for preferential infiltration in stagnic soils" by B. Lange et al.

Anonymous Referee #2

Received and published: 20 April 2009

The novel component of the paper is the relationship between root parameters and rivulet parameters, however this is not clearly emphasized and the discussion is shallow. For example, the root length density of fine roots measured was between 0.017 and 1.85, which is extremely low in the context of measured rld, but this is not acknowledged. Also, the correlation between bulk density and the rivulet parameters is greater than the correlation between root parameters and rivulet parameters. This provides and opportunity for an interesting discussion - how would the rivulet parameters be expected to change with increasing bulk density - given the plethora of information available on this subject, and how would you expect rivulet parameters to change with increasing root length or morphology, but this is not addressed. In general the



experimental data does not show a great deal but could provide food for an interesting discussion, but this is not the case.

There is no novelty in the application, it is very similar to that in the paper by Germann et al. 2007 where the rivulet theory is developed.

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., 5, 2373, 2008.

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