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Reply on RC1

Jinxia An et al.

Author comment on "Inter- and intra-event rainfall partitioning dynamics of two typical xerophytic shrubs in the Loess Plateau of China" by Jinxia An et al., Hydrol. Earth Syst. Sci. Discuss., <https://doi.org/10.5194/hess-2022-4-AC1>, 2022

Dear Pro. David Dunkerley,

Thank you very much for the prompt review on our manuscript (hess-2022-4). I want to give a quick reply to your comments about the novelty of this work. We will submit a detailed reply later.

In your comments, you stated that "Both Yuan et al. (2019) and the present ms. (An et al.) seek to explore the role of rainfall variability and plant architecture on stemflow, throughfall, and interception, paying attention to how these work at intra-event timescales." Actually, this work is greatly different from Yuan et al. (2019) which only studied the branch-scale stemflow (only one of the rainfall partitioning processes). We can see it from the title of Yuan et al. (2019), i.e., "Yuan, C., Gao, G., Fu, B., He, D., Duan, X., & Wei, X. (2019). Temporally dependent effects of rainfall characteristics on inter- and intra-event **branch-scale stemflow** variability in two xerophytic shrubs. Hydrol. Earth Syst. Sci., 23(10), 4077-4095. "

This work conducted a concurrent in-depth investigation of throughfall, stemflow, and interception at inter- and intra-event scales for two typical xerophytic shrubs. To our best knowledge, there was no study to investigate the intra-event variations of all the rainfall partitioning components (throughfall, stemflow, and interception loss) for shrubs. This is the main novelty of this study.

Best regards!

Guangyao Gao