Comment on hess-2022-290
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Community comment on "Revisiting the Hydrological Basis of the Budyko Framework With the Hydrologically Similar Groups Principle" by Yuchan Chen et al., Hydrol. Earth Syst. Sci. Discuss., https://doi.org/10.5194/hess-2022-290-CC1, 2022

Dear colleagues,

I apologize for posting this note about what you may consider as "details".

But:

1. the formula that you identify as "Yang et al (2008)" is much older than that: Turc in 1954 and Mezentsev in 1955 published it simultaneously. If you had read Fu (1981), which you cite, you would have heard about Mezentsev, because Fu cites him.

2. the formula of Fu (1981) was previously published by a French hydrologist, Tixeront in 1964 (but this citation is more difficult to find, I acknowledge it).

3. the seasonality index of Walsh and Lawler (1981) is extremely weak in that it only deals with rainfall, it does not address the issue of the relative seasonality of P and E (and after all, all Budyko's framework is about comparing P and E). I would suggest you have at least a look at the work we published on that topic (de Lavenne & Andréassian, 2018).

Best regards,

V. Andréassian

References


Turc, L.: The water balance of soils: relationship between precipitations, evaporation and