Hydrol. Earth Syst. Sci. Discuss.,
https://doi.org/10.5194/hess-2019-39-RC2, 2019

Hydrology and Earth System Sciences
Discussions
Open Access
EGU

Interactive comment on "Technical Note: On the confounding similarity of two water balance formulas – Turc-Mezentsev *vs* Tixeront-Fu" *by* Vazken Andréassian and Tewfik Sari

Anonymous Referee #1

Received and published: 18 February 2019

I would like to thank the authors for their quick and satisfying response to my comments.

- My point that "Table 4, property7: this statement is true for "absolute streamflow changes", not for "relative streamflow changes (i.e. streamflow elasticity)" referred to the fact that a precipitation change in arid location will (on average) lead to a greater change relative change in runoff. For example, a 10% increase in P in an arid location could lead to a ∼20% increase in Q. Whereas in a very humid location, a 10% increase in P will lead to a ∼10% increase in Q. However, in hindsight I think this is not really relevant as you state the math next to the descriptive statement, so it should be clear that your statement refers to absolute runoff changes (which indeed will be smaller in

Printer-friendly version

Discussion paper

arid places).

- (While I am not a native English speaker) the current use of the word “confounding” does not seem to lead to clear (or correct) title. Because the two equations are near-identical, and this sometimes leads to confusions when they are used, one could say something like “the distinction between these two equations is confounded”. However, saying “the equations are confounded” seems illogical to me. Anyway, I do not think this is a big deal, but I would encourage considering using a simple title that avoids any possible confusion.

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., https://doi.org/10.5194/hess-2019-39, 2019.