

Interactive comment on “Complementary Relationship for Estimating Evapotranspiration Using the Granger-Gray Model: Improvements and Comparison with a Remote Sensing Method” by Homin Kim and Jagath J. Kaluarachchi

Anonymous Referee #2

Received and published: 29 August 2017

In this paper authors present an assessment of the accuracy of the Granger-Gray model to compute actual evapotranspiration and propose a new calibration of coefficients. It is not clear why authors include SSEBop evapotranspiration estimates. In my opinion these are only values estimated with a different model. So I think real validation should be done by comparing the Granger-Gray model estimates with evapotranspiration fluxes measured at eddy-covariance sites. Regarding these latter, authors should check that evaporation fluxes are representative of the vegetation type they are considering. So they should check the station footprint in order to detect possible fluxes from

C1

heterogeneous vegetation that should be discarded from analysis. The new formulation of GG equation with a f correction function has limited usefulness as it is only valid for the territory and the period analysed in this study. Of course it is a large territory but, in order to demonstrate validity and robustness of this equation, I suggest to split the dataset into two parts. On the first part authors should calibrate parameters of the correction function and they should use the second part to validate the new equation.

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., <https://doi.org/10.5194/hess-2017-346>, 2017.

C2