

Interactive comment on “Technical Note: Analytical Inversion of the Parametric Budyko Equations” by Nathan G. F. Reaver et al.

Anonymous Referee #3

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- 1) This manuscript analytically derived both forms of the parametric Budyko equations, producing expressions for n and w only in terms of long-term mean P , E_0 and E . This derivation is logically sound, but the expressions for n and w are too complex to apply for estimating the values of n and w .
- 2) This paper lacks rationality analysis of n and w expressions. It is necessary to analyze the rationality of the results using the observation data in some watersheds with different climate and biophysical features.
- 3) The expressions derived in this paper are only suitable for natural watersheds or for the analysis of climate-vegetation-hydrology equilibrium. However, it can not be used to estimate the impact of land use changes or vegetation changes due to human activities on the water balance of watersheds.

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Interactive comment on Hydrol. Earth Syst. Sci. Discuss., <https://doi.org/10.5194/hess-2020-585>, 2020.

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