Interactive comment on “Three perceptions of the evapotranspiration landscape: comparing spatial patterns from a distributed hydrological model, remotely sensed surface temperatures, and sub-basin water balances” by T. Conradt et al.

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Equation 6 is not correct since, as it is expressed now, it does not take into account the proportion of the downwelling longwave radiation (R_la) that is reflected by the surface. Since the land surface is not a blackbody (emissivity_e<1), and according to the Kirchoff’s law, it should reflect longwave radiation by a factor of (1-emissivity_e). Therefore, Eq. 6 should be expressed as follows:

\[ R_n = (1 - \text{albedo}) \times R_{sg} + \text{emissivity}_e \times R_{la} - R_{le} \]
where $R_{la}$ and $R_{le}$ are expressed as in Eqs. 7 and 8.

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