

Interactive comment on “The impact of in-canopy wind profile formulations on heat flux estimation using the remote sensing-based two-source model for an open orchard canopy in southern Italy” by C. Cammalleri et al.

Anonymous Referee #2

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Overall this is an interesting topic, however some points should be clarified and implemented before the publication. In the paper the authors show how the TSEB model, a very well know one, works with different algorithms for the simulation of in canopy wind profile. The model results are validated using ground measurements of energy fluxes, while airborne data are used as input to the model. The paper is well written, and after a minor revision, it can be published.

Detailed comments: - a lot of constant parameters are used in wind formulation and

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also in TSEB model, but in the paper there is not a clear description of them and a justification for their usage. - chapter 2.1: rx parameter should be describe as rs - chapter 2.1: ra parameter should be describe due to the fact that is affected by wind velocity, that is a relevant topic of this paper - chapter 4.1: the paper is based on the verification of three algorithms for wind profiles estimates and their impact on energy fluxes, but there is not a real verification of these formulations against observed wind profiles. A comparison is needed to understand which model is better for this case study.

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