

Interactive comment on “Retrieval of Canopy component temperatures through Bayesian inversion of directional thermal measurements” by J. Timmermans et al.

Anonymous Referee #1

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This seems to be a good and useful approach to estimation of canopy temperature using multiangular radiance observations, and provides a useful assessemtn of the value of the approach.

My main concern relates to the use of single values for sunlit and shade temperatures for leaves. At least for the leaf temperature components it is usual for the range of 'sunlit' temperatures to be 5-10C on sunny days, for stressed plants with partially closed stomata this range can be even larger up to 15 C. There is similar, though slightly smaller variation for shaded leaves. The authors should at least comment on this problem and possible solutions/implications.

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Although I eventually understood the paper and the terminology used, I found it a little opaque and I feel that the authors could have a go at clarifying the paper and the figures - for example the authors appear to be suggesting that success rates of 1 (the green areas on figures?) indicate some success in retrieval. They can't mean it can they?

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