Interactive comment on “Evaluation of the Surface Energy Balance System (SEBS) applied to ASTER imagery with flux-measurements at the SPARC 2004 site (Barrax, Spain)” by J. van der Kwast et al.

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This paper is a nice evaluation exercise of the SEBS model for which I only have minor remarks:

p. 1170, line 3: zero plane displacement height instead of displacement height

p. 1171, lines 17-18: it is not clear to me what’s the difference between V-LAS and V-EC + these are not indicated in figure 1

p. 1172, equation 5: the denominator should be N-1 as one degree of freedom has been used to estimate the mean.

p. 1174, lines 1-7: please expand. this is now very short and vague (“slightly influ-
enced", "little influenced": please explain why you can make these statements)

p. 1174, line 10: explain how you did the weighting

p. 1175, line 9: typo, should read Obukhov

p. 1175, line 10: sensible heat flux is underestimated: does this imply that latent heat flux then overestimated?

p. 1176, equation 6: $H_{\pm}$: not clear how this should be applied: once with $H_+$ and another time with $H_-$. Both (?) are called $S_i$, but how does one know with what it was calculated (with $H_-$ or $H_+$)?

p. 1176, lines 4-6: there’s a large difference between both deviations: one is 1%, the other 25%. Why such large difference? Couldn’t the 25% be reduced to e.g. 5%?

p. 1178, line 11-12: due to these sudden changes in vegetation: doesn’t this violate the Monin-Obukhov hypothesis? + how does the model deal with mixed pixels?

Figure 3: add in caption the explanation of EC, LAS, SA

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