

Interactive comment on “Quality control of CarboEurope flux data – Part II: Inter-comparison of eddy-covariance software” by M. Mauder et al.

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I have a few comments on the discussion of the frequency response corrections which the authors may find useful: (1) I am missing a reference to which reference (model) cospectrum is used; I suppose the so-called Kaimal cospectrum for sensible heat is used, but this should be stated somewhere (including a reference to actually which equations have been used as several different forms can be found in literature) (2) for the sake of completeness (not necessarily for the intercomparison aimed at in the manuscript which is fine as long the same model cospectra are used) it should be mentioned that in order to accurately apply frequency response corrections it is necessary that the reference model cospectrum matches the actual shape of the cospectra measured at each site; it is now increasingly realised that the Kaimal cospectra are not

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as universal as has been thought previously; at sites where the actual cospectra diverge considerably from the shape suggested by Kaimal et al. the frequency response corrections may be biased (3) in some cases the integration for determining the correction factors is done numerically, in other cases an analytical solution based on some simplified cospectral shape is used; this may contribute to differences between the Moore and Eugster & Senn approaches; in case of numerical integration the result may also deviate depending on which numerical method is chosen for integration, on the integration intervals, as well as on upper and lower bounds of the integration range (4) p. 4081, l. 10: in the case of EdiRe, which seemingly was the only software accounting for high-pass filtering, it should be straightforward to calculate how much of the suspected discrepancy is indeed due to this additional correction (5) p. 4071, l. 11: there are more than the two approaches (Moore and Eugster & Senn) out there for correcting for high-pass filtering - see reviews by Massman and others

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