

Interactive comment on “Improving terrestrial CO₂ flux diagnosis using spatial structure in land surface model residuals” by T. W. Hilton et al.

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Author responses to Anonymous Referee #1

Referee comments in boldface, author responses in normal typeface.

Beforehand, it should be noted that this referee is neither an expert in land surface modeling nor in geostatistics, but rather in uncertainty of eddy-covariance measurements. Therefore, these comments relate only to this aspect of this work. The manuscript is generally well written and clearly structured. It investigates the spatial scales of correlation of modeled flux residuals. It is probably a good choice to only use non-filled NEE observations for this study (p7080,112) since the uncertainty would largely increase otherwise. What is written in sec-

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tion 2.3 about EC observation errors is in agreement with the literature.

Thank you for these comments. We agree that using filled fluxes would introduce additional (and unwanted) uncertainty to the analyses.