

Interactive comment on “Inter-comparison of energy balance and hydrological models for land surface energy fluxes estimation over a whole river catchment” by R. Guzinski et al.

T Conradt (Referee)

conradt@pik-potsdam.de

Received and published: 29 June 2014

Review by T. Conradt, Potsdam Institute for Climate Impact Research

As I am the lead author of one of the papers being cited in the Introduction, I am probably biased towards the work of Guzinski et al. But even when I try to keep as objective as I can, I must state that this paper is very well and carefully written and I have not reviewed such a clear manuscript for long.

I would opt for a minor revision, and these are my recommendations:

Full Screen / Esc

Printer-friendly Version

Interactive Discussion

Discussion Paper



Page 5911, middle of the lower paragraph: “The locations of the rain gauges and climate stations in relation to the study area are presented in Fig. 2 of Stisen et al. (2011a).”

I think it should be no problem to add these locations as red dots to Fig. 1 and I would like to see them there. There are still many occasions in this manuscript where references to other publications may be unavoidable, especially regarding lengthy model descriptions, but here there is no need to keep readers busy searching other sources.

Page 5916, end of first paragraph and Page 5917, end of first paragraph: “The modelled fluxes are output at 1 km resolution.”

The resolution(s) of the original input pixels of the satellite scans should be given, and it should be added how they were georeferenced and interpolated to this 1 km output grid.

Page 5917, second paragraph: “all the days between 2003 and 2010”

There are several instances (cf. the figure captions) where you wrote that you used seven years of data. However, there are only six years *between* 2003 and 2010, and including these years it would be a timespan of eight years.

Page 5921, end of first paragraph and Page 5923, third line from the bottom: “not shown.”

This wording should be avoided. You may write about observations you made without visualising the data, but just giving the relevant numbers or showing the extra figure would be better, of course. If the latter makes no sense in your eyes, O.K., but then you may at most explain why you cannot show everything. (Read: just leave the “not shown” away!)

Finally, all the figures illustrating the correlation of spatial patterns

These are entirely density scatter plots. I would like to see one or two triplets of maps

[Full Screen / Esc](#)[Printer-friendly Version](#)[Interactive Discussion](#)[Discussion Paper](#)

showing the actual spatial distribution of the heat fluxes over the catchment. This would allow for analysing the deviations in specific locations with respect to special soil or surface characteristics.

So much for my wishlist. But even if the authors cannot comply with everything, I strongly recommend the publication of this valuable contribution.

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., 11, 5905, 2014.

HESD

11, C2120–C2122, 2014

[Interactive
Comment](#)

[Full Screen / Esc](#)

[Printer-friendly Version](#)

[Interactive Discussion](#)

[Discussion Paper](#)

