

## ***Interactive comment on “The location of the thermodynamic atmosphere–ice interface in fully-coupled models” by A. E. West et al.***

**A. E. West et al.**

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Dear Astrid,

Thanks for your comment. After having read the guidelines you mention, I think that our paper comes under the heading of ‘Development and technical papers’. I do not think that it would be appropriate to mention HadGEM3 in the heading as our paper is an idealised case study with a toy model built from two very small modified components of the submodels CICE (for sea ice) and JULES (for surface exchange). We have not tested the two coupling methods with the fully-coupled HadGEM3 because it would not be practical to do so (as mentioned in Section 5).

Therefore I suggest that in the final revised version, the title should be amended to the

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following for clarity:

“The location of the thermodynamic atmosphere-ice interface in fully-coupled models: a case study with GICE and JULES”

I am not sure that a version number for either component would be meaningful or helpful for this purpose, as they are not being used in their original form. This is particularly the case for the surface exchange component, which effectively just solves the well-known surface energy balance equation.

The code for the toy model used can then easily be made available in its full form as a supplement, along with code used in producing the plots.

I hope this sounds a satisfactory solution.

Alex West

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Interactive comment on Geosci. Model Dev. Discuss., 8, 9707, 2015.

**GMDD**

8, C3171–C3172, 2015

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