

Interactive comment on “An orthogonal curvilinear terrain-following coordinate for atmospheric models” by Y. Li et al.

H. Weller (Editor)

h.weller@reading.ac.uk

Received and published: 18 June 2014

Many thanks for this revised draft which seems much improved. I think that this could be a useful contribution in terms of describing clearly the problems with using orthogonal coordinate systems. I have a few more particular comments:

1. On page 9, line 8 you refer to skewness. Please define skewness and say why it is relevant for advection
2. On page 9, lines 13-14 you say that the convergence and divergence of grid lines could be alleviated. I don't think so. Not while retaining orthogonality using entirely hexahedral cells. It seems clear from your meshes that you either get convergence in the x direction, or in the z direction or in a combination of the two. As with the cubed-

Full Screen / Esc

Printer-friendly Version

Interactive Discussion

Discussion Paper



sphere, you can only get an orthogonal system if you allow severe convergence and/or divergence in one or more directions.

3. On page 9, line 29 you say "the horizontal grid lines are much more distracted"

4. In the acknowledgements, please give the name of the editor you are thanking!

Interactive comment on Geosci. Model Dev. Discuss., 6, 5801, 2013.

GMDD

6, C3086–C3087, 2014

Interactive
Comment

Full Screen / Esc

Printer-friendly Version

Interactive Discussion

Discussion Paper

C3087

