Interactive comment on “Sensitivity of simulated CO$_2$ concentration to regridding of global fossil fuel CO$_2$ emissions” by X. Zhang et al.

X. Zhang et al.
tyouxia@gmail.com

Received and published: 29 August 2014

Comments: The CO$_2$ concentration difference between two cases (control and experiment) is mainly caused by allocation hand emissions on ocean grids. It is necessary to improve the understanding of regridding issue with an additional case by changing all ocean grids as land grids on the coastline in PCTM modeling.

This is a very interesting idea. Unfortunately we can’t do it in this study because PCTM is an off-line model, which is it takes pre-defined meteorology. We believe the contribution of the paper as it stands means the delay incurred repeating the study with an on-line model before publication would harm rather than help the field. We certainly hope to test this idea in a follow-up study and have added comments to this end in the discussion.