

Interactive comment on “Western Europe is warming much faster than expected” by G. J. van Oldenborgh et al.

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This first comment is just to question the choice of the metric to select the subsample of CMIP3 models you are going to look at. You based your choice on a specific circulation index (other possibilities do exist and will likely give different results) which might be relatively appropriate for winter but not really for summer. It appears that among the models you have been selected, at least two of those have very strong biases in summer in their representation of the mechanisms which control evapotranspiration over France (and likely elsewhere as well). These biases may have a strong impact on temperature and precipitation changes as shown in Boe et Terray GRL 2008 Vol 35. So I would certainly not pick them up if I wanted to compare recent summer temperature trends between model and observations. My suggestion would be not to use a metric

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at this point but rather to carry out the analysis on all CMIP3 models. Another point is the use of the PRUDENCE models: there are new regional simulations out there and they are available (ENSEMBLES RT2b): have you checked if you do find the same results ? The reason why I am asking that is that we have carried out a similar analysis for a very high quality temperature dataset of 91 homogenized France stations: we have compared the station point values with those coming from several ensembles of zoomed ARPEGE simulations (resolution of 50 km over France) with different forcings. For many stations, the recent observed trends are within the simulated spread, very often on the high end but not always. I believe that the very strong statement expressed by the title of the paper has to be mitigated a little or the analysis has to be extended to the last regional model results.

Interactive comment on Clim. Past Discuss., 4, 897, 2008.

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