

Interactive comment on “Climate forcing reconstructions for use in PMIP simulations of the last millennium (v1.0)” by G. A. Schmidt et al.

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This isn't an editorial comment, but more of a personal, argumentative kind of thing.

I am interested to see that both reviewers would like to see a base configuration to be run by all groups!

Personally I can't see the point of this *if* the main uncertainty about the Last Millennium (LM) is the forcing. In that case, the experiment should be designed such that this is investigated; the result required is not the model sensitivity to identical forcing, but the sensitivity across the ensemble to different forcing. Remembering that the LM is a "heavy" computation, groups will not be able to do many runs. In addition there are many other PMIP and CMIP runs which compare the models under identical forcing.

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Surely scientists analyzing the LM results will have those runs also on hand to enable them to understand the basic model differences.

Perhaps some further consideration of the experimental design is required. I thought of two approaches (probably there are many more) depending on how much expertise/time/enthusiasm you consider there to be among the modelling groups. The first way is, if you believe that all the modelling groups have sufficient resources to consider carefully all the options and make good judgements, then leave each group to make its own best judgement as to which boundary conditions to use. The result will be an ensemble that samples the uncertainty of the experts, but you risk losing runs from groups with smaller resources. A second way would be for the authors of this paper as "LM experts" themselves, to derive prior distributions for the boundary conditions, and then randomly assign boundary condition packages to the different groups, in much the same way as climateprediction.net.

Just some thoughts....

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