

Interactive comment on “Identification of climatic state with limited proxy data” by J. D. Annan and J. C. Hargreaves

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Received and published: 25 April 2012

Thank you for your helpful comments.

The forcing pattern is essentially the same as the projected temperature changes shown in IPCC Fig 10.8 (which we will cite). Note that although the pattern is the same for all ensemble members, the phase is effectively random so that only 1/10th of the full ensemble have the same forcing applied as any given target year in the truth run. Naively, we initially expected that this would strongly reduce the posterior effective ensemble size, but it seems that achieving a reasonable match to the forced response to some extent over-rides the need to also match the internal variation. We will discuss this in more detail.

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The potential predictability in the forced case will be strongly dependent on the nature of the forcing. We will look at this but it may be difficult to relate it usefully to assessments of the performance of other models.

Interactive comment on Clim. Past Discuss., 8, 481, 2012.

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