

Interactive comment on “Large-scale features of Pliocene climate: results from the Pliocene Model Intercomparison Project” by A. M. Haywood et al.

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1. General Comments

The paper offers an important and significant contribution to paleoclimate research as it provides a synthesis of a large volume of modelling work that has focused on a key interval of past global warmth – the mid-Pliocene Warm Period (mPWP). The paper addresses uncertainties in model simulations by comparing key outputs (surface air temperature, sea surface temperature, and precipitation) from two experiments conducted using eleven models. Furthermore, multi-model mean outputs were compared with proxy climate data derived from the PRISM3D data set.

The paper is well written and clearly structured. A succinct review of PMIP's objec-

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tives is presented and provides sufficient background. Research rationale, experimental approach and major outcomes are also well presented. Outcomes regarding Earth System Sensitivity are important and discussion concerning possible causes of model-data discrepancies (including time-averaging) are thought provoking. I suspect these arguments will guide the direction of future paleoclimate research to include time slices outside the Pliocene.

I look forward to reading a paper on smaller/regional scale features from the PMIP studies!

Please also note the supplement to this comment:

<http://www.clim-past-discuss.net/8/C1651/2012/cpd-8-C1651-2012-supplement.pdf>

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