Interactive comment on “Using data assimilation to study extratropical Northern Hemisphere climate over the last millennium” by M. Widmann et al.

J. Annan
jdannan@jamstec.go.jp

Received and published: 2 November 2009

I would like to thank the authors for an interesting review of applications of data assimilation methods to studying the climate of the last millennium.

I would be interested to see more discussion of the treatment of uncertainty in this field. One powerful aspect of assimilation methodology is the explicit generation of uncertainty estimates associated with the optimal analysis. For example, one might reasonably hope for reconstructions of past climate variability that have lower, and better defined, uncertainties, than those existing reconstructions which are based on a purely statistical treatment of proxy data. However, this hasn’t really been addressed in
the manuscript (and perhaps in the existing work upon which it is based, in which case maybe it could be discussed most appropriately in terms of a goal for future work). Anyway, I would appreciate the thoughts of the authors on this matter.

Interactive comment on Clim. Past Discuss., 5, 2115, 2009.