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Climate of the Past Discussions

Interactive comment on "On the verification of climate reconstructions" *by* G. Bürger and U. Cubasch

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The lessons we have learned from this discussion leave us with considerable discomfort.

We have shown that the strong trend of the intrumental period is able to artificially inflate the verification skill of a number of current climate reconstructions. Using a bootstrapping technique we estimated this inflation for 48 "flavors" of reconstruction. Among them were the flavors 1011 and 0130 which emulate two of the most strongly advocated reconstructions (MBH98 and Rutherford et al. 2005), with an inflation of about 100%.

We find it alarming that none of the reviewers discussed or even mentioned this core result of the study at all. Instead, two reviewers elaborate lengthy on marginal or irrel-

evant issues, such as detrending or missing at random.

But even if some of the raised issues apply (see Appendix) most flavors remain unaffected, including the two mentioned above (1011 and 0130). In fact, even if only these two were valid would in our view still be a result so remarkable that it is certainly worth publishing.

And most importantly: Should not the slightest chance of such a result being true arouse some scientific curiosity, at least, instead of the overly offending criticisms that we have seen?

Presentation and line of arguments might sometimes lack clarity and focus, and can definitely by improved. This partly results from the space limitations imposed by the original submission.

Appendix: Ongoing dissens over RegEM

According to rev.3, some RegEM flavors are inconsistent (those which are not of the form x13x) because for them the regression functions of the RegEM iteration in **COV** and of the subsequent **MDL** step are different. But that "inconsistency" would imply an inconsistency in the RegEM estimate of the proxy/temperature covariance, which we are ready to accept if that can be laid out more clearly.

In that case, we suggest to replace the affected RegEM flavors by flavors that use the classical EM algorithm, i.e. RegEM without regularization.

Interactive comment on Clim. Past Discuss., 2, 357, 2006.