

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

Anonymous Referee #2

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This is a very disappointing comment from Zorita. Rather than come clean and confess their errors, Zorita and Von Storch have instead chosen to obfuscate, by raising one additional red herring after another.

This is particularly true for the "detrending" step. Mann et al (in press) have shown indisputedly that this step is simply erroneous. They a very general set of examples from a well-behaved (NCAR) simulation of the past 1000 years, and demonstrating that the correctly implemented RegEM procedure gives an excellent reconstruction even at every low proxy signal-to-noise ratios and even at very high levels of redness ($\rho = 0.71$) in the proxy noise, and passes statistical validation. They then show that implementation of the erroneous Zorita/von Storch/Cubasch/Berger step of detrending the data prior to calibration produces a meaningless reconstruction, and it fails validation. There is no

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room for further meaningful discussion no this scientific point. The detrending step is erroneous, and it distressing that those who have used it have backed themselves into a corner where they are unwilling to admit this simply fact which is now widely obvious to the rest of the community.

It is interesting that Von Storch, who first introduced this erroneous detrending step into the literature (in an undisclosed manner) in Von Storch et al (2004), obviously doesn't really take this procedure seriously enough to have used it in his own work. Von Storch was an author on a paper [Luterbacher, J., E. Xoplaki, D. Dietrich, P.D. Jones, T.D. Davies, D. Portis, J.F. Gonzalez-Rouco, H. von Storch, D. Gyalistras, C.Casty, and H. Wanner, Extending North Atlantic Oscillation reconstructions back to 1500, Atmospheric Science Letters, 2, 114-124, 2002] in which a PCA-based proxy reconstruction approach was used, and as in Mann et al (1998) and all other previous studies using such approaches, data were not detrended prior to calibration even though the predictand (the NAO) had a substantial trend over the calibration interval (1901-1960). It is interesting that Von Storch and coworkers happily advocate inserting a deleterious procedure when their aim is to rubbish the work of others, but are unwilling to apply it to their own work. This is quite telling.

The reader is referred to the following online articles for further discussion:

<http://www.realclimate.org/index.php/archives/2006/04/a-correction-with-repercussions/>,
<http://www.realclimate.org/index.php/archives/2006/05/how-red-are-my-proxies/>

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

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