

***Interactive comment on “Rates of global  
temperature change during the past millennium”  
by C. Shen et al.***

**Anonymous Referee #2**

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**General Comment**

The manuscript ‘Rates of Global Temperature Change during the Past Millennium’ by Shen et al. presents an analysis of instrumental, reconstructed and simulated global temperature series. Although the topic is interesting, the manuscript is not well written and some fundamental choices are questionable. There is a lack of a clear structure and paragraphs are not well connected. Several parts have to be revised. Implemented/applied methods and procedures are not properly described in the manuscript as well as simulations. The removal of the 50-80-yr oscillation is questionable and not supported by an adequate explanation and/or additional analysis. In the cited references, the aforementioned oscillation was identified using time series from ~1850. Therefore, it has to be clearly proved that this oscillation characterizes the 1000-yr

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series.

**Some Specific Comments**

29: Rephrase this sentence.

51-56: Revise the entire paragraph.

76-78: Revise this paragraph.

85-86: Please make a link between the two paragraphs.

87-89: Schlesinger and Ramankutty (1994) identified a 65-70-yr oscillation in global mean temperature lying within the timescale band of these regional oscillation, 50-88-yr.

89-92: Revise the paragraph.

91-95: this is an oversimplification.

100-104: Revise this paragraph.

117-118: Connect this part with the rest of the paragraph.

131-134: Clarify this statement.

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Interactive comment on Clim. Past Discuss., 7, 2341, 2011.