

## ***Interactive comment on “On reconstruction of time series in climatology” by V. Privalsky and A. Gluhovsky***

**Anonymous Referee #1**

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As a verification statistic the variance explained by a model is used. It gives about 60% for the regression approach and 80% for the AR model. As a measure for reconstructive skill the latter value is inappropriate, however, since it is only applicable to the calibration period. The reason is that the value is calculated as complement to the innovation sequence variance of 20%. The 80% pertains, therefore, to the variance that is explained for each \*next\* value of TSI, based on existing past observations of SSN and TSI itself. For reconstruction, this is not applicable since past \*observed\* values of TSI do not exist. As a result, the additional amount of variance explained by TSI memory is artificial, and the purported added value from using time series analysis as compared to regression remains unverified.

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Interactive comment on Clim. Past Discuss., 11, 4701, 2015.

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