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## *Interactive comment on* "Enhancing temporal correlations in EOF expansions for the reconstruction of missing data using DINEOF" *by* A. Alvera-Azcárate et al.

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We thank the reviewer for the comments made. The reviewer is right in that known variability should be subtracted from the data set before computing the EOFs. In DINEOF a general space and time average is subtracted from the data, so we work anyway with anomalies. This procedure was established in order to compute anomalies in any data set, without prior knowledge of its variability. A space and time average also guarantees us that the anomalies computed are symmetric in space and time. This procedure is embedded into DINEOF, so all previous works have been performed by subtracting a space and time average to the data. In this work, we wanted to examine the effect of

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the temporal filtering in the accuracy of the reconstruction. Removing a seasonal cycle would presumably affect DINEOF with and without filter in the same way, so in order to focus on the effect of the filter, we think it is better to use DINEOF as it has been normally been used in the past.

The point raised by the reviewer is however interesting, and we will examine in future research the effect of the average removed from the data on the quality of the DINEOF reconstructions.

Interactive comment on Ocean Sci. Discuss., 6, 1547, 2009.