Nonlinear Processes
in Geophysics
Discussions

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Interactive comment on "Nonstationary time series prediction combined with slow feature analysis" *by* G. Wang and X. Chen

Anonymous Referee #1

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The authors use the Slow Feature Analysis (SFA) to extract the driving force(s) in nonstationary time series, and then they incorporate them into a prediction model to improve predictions. They first test the approach in a known dynamical system (the logistic map) forced by equation 9. This example shows that SFA recovers the forcing very accurately and that the predictive model including this force results in improved predictions.

They then apply the method to the nonstationary time series of total ozone in Arosa, Switzerland. They again show improved predictions (very impressive for short time steps).

The method is outlined very clearly and the results are solid. In my opinion this paper should be published in NPG as this approach will see more and more applications,

given that in climate most of the signals are nonstationary.

A minor comment: In the abstract line 5 the word "combining" should be replaced by "recovering" or "extracting".

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