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Discussions

Interactive comment on "Landslide displacement prediction using the GA-LSSVM model and time series analysis: a case study of Three Gorges Reservoir, China" *by* Tao Wen et al.

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This paper presents an interesting time series analysis, where the cumulative displacement is decomposed into trend component displacement representing the trend of the landslide deformation in the long-term and periodic component displacement exhibiting the short-term deformation fluctuation. However, this manuscript is suggested "accept after minor revisions," provided that the following considerations are addressed and the manuscript revised accordingly. 1.The reviewer suggests verification of or discussion on why "The trend displacement and the periodic displacement are predicted by polynomial function and the GA-LSSVM model, respectively." 2.The Section 3.2 (Monitoring data and deformation characteristics of the landslide) describes the monitoring

data used in this study. The reviewer suggests validate these sampling data for land-slide displacement prediction in the very beginning; i.e. are those continuous and mutually dependent landslide data applicable or feasible to the statistical method, such as the least squares support vector machine (LSSVM), basically dealing with independent sampling data. 3.In the text there are 8 monitoring stations with GPS, in figure 4 stations appear. The 8 stations only appear in figure 6, but in the work and in the other figures and in the tables only appear data of 3 GPS stations. 4.Abstract section should contain important numerical figures such as relative error or RMS error figure. 5.Numerical improvement in some circumstances may not be the core technology and sometimes it may be redundant, leading to the suggestion of redirection and emphasis on why we need such a model analysis in real applications perhaps included in the Introduction section.