Hydrol. Earth Syst. Sci. Discuss., 10, C1528-C1529, 2013

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## Interactive comment on "Assessing parameter importance of the Common Land Model based on qualitative and quantitative sensitivity analysis" by J. D. Li et al.

## **Anonymous Referee #1**

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Over all, this paper is well organized. A suite of SA methods are tested on a complex land surface model, CLM. It is clearly demonstrated that most of the SA methods are capable of identifying the sensitive parameters of CLM with small sample size in this experiment setting. The results promise that state-of-the-art SA methods can be applied to analyze complex earth system models in some cases. The authors also interpret the SA results from the view point to model physics to prove the effectiveness of the methods. The paper could be further improved if the authors could work more on improving the presentation. For instance, the descriptions of figure formats (such as Line 20-27 on Page 2256) should be moved to the figure captions instead of putting

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them in main body.

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Interactive comment on Hydrol. Earth Syst. Sci. Discuss., 10, 2243, 2013.