Hydrol. Earth Syst. Sci. Discuss., 6, C3051-C3052, 2010

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## *Interactive comment on* "Contribution of soil moisture feedback to hydroclimatic variability" *by* N. Y. Krakauer et al.

## Anonymous Referee #2

Received and published: 7 January 2010

The paper analizes the feedback of dynamical soil moisture on the atmosphere, using different spatial and temporal metrics. The methods and most of the results are not new but the topic is important and the results are presented in a very well organized way, thus the paper deserves publication after a minor revision.

My comments:

- since, as the authors agree, soil models can be biased and could not represent nonlinear interactions between soil and atmosphere corretly, they should discuss into more extent the performances for the soil model they used

- plots are presented with different scales depending on the seasons, they should be

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the same to allow a quicker interpretation

- there is and issue about how statistical significance of differences is computed. The authors are implicitly assuming that the two variance is the same. This is actually false, in fact it is one of the results of the paper. I suggest a t-test or better a non-parametric test like Mann-Whitney.

- fig 9: why are there differences in the antarctic continent?

typos: pag 6973 line 21 separately

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., 6, 6967, 2009.