Interactive comment on "On the nonlinear feedback loop and energy cycle of the non-dissipative Lorenz model" *by* B.-W. Shen

B.-W. Shen

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Dear Reviewer II:

Our specific responses to your comments are provided below. We really appreciate your comments which have greatly improved the quality of the study and hope that our responses are acceptable.

Best Regards,

-Bowen

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Interactive comment on Nonlin. Processes Geophys. Discuss., 1, 519, 2014.

Dear Reviewer:

We thank you for providing us the opportunity for explaining further the progress we have made. In the attached manuscript, we have

1. provided one section entitled ``Nonlinearity and Diverged trajectories,'' which includes numerical results of the 3D-NLM and calculations of the ensemble Lyapunov exponents with five additional figures (i.e., Figures 7-11);

2. provided Appendix A to discuss the derivations of Eq. (3) that includes the σY term;

3. provided Appendix B and Figure B1 to discuss the closed-form solution with elliptic functions and compare it with the closed-form solution represented by the elementary trigonometric functions in section 3;

4. provided Figure 5d to show the solutions near stable critical points (with different initial conditions for X_o) in the 3D-NLM with r $\neq$0.

Our specific responses to your comments are provided below. We really appreciate your comments which have greatly improved the quality of the study and hope that our responses are acceptable.

Best Regards,

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Fig. 1. Responses are provided in the response file and revised manuscript, which were uploaded.