Nonlinear Processes
in Geophysics
Discussions
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Interactive comment on "Transient behavior in the Lorenz model" by S. Kravtsov et al.

Anonymous Referee #2

Received and published: 29 January 2015

In their response the authors argue (concerning the previous works by Krauskopf, Osinga and coworkers) that their own work "can serve as an introduction to the subject of these papers [...] with the purpose of exposing them to a more 'applied' nonlinear geosciences community".

In my opinion, this argumentation is too weak, and the manuscript does not fulfill the most important scientific requirement of NPG, namely, to contain new and significant results.

Concerning my other (not-so-minor) comments, I think it is important to preserve a minimal mathematical rigor to preserve the coherence in scientific literature. Particularly, by replying to my remark (2) the authors introduce their own finite-time Lyapunov exponents, which are (again) different from the classical definitions. In my view of science, introducing new quantifiers must be well-grounded, no matter the qualitative

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agreement we can eventually observe in a particular situation. Indeed, it is not difficult to construct cases where the authors' definitions would give completely absurd results. There are already meaningful quantifiers of Lyapunov stability in the literature.

Interactive comment on Nonlin. Processes Geophys. Discuss., 1, 1905, 2014.