Nonlinear Processes in Geophysics

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Discussions

Interactive comment on "Analysis of stochastic model for non-linear volcanic dynamics" by D. Alexandrov et al.

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This a good paper and the right approach is taken. The authors have made the dynamical system stochastic as it is potentially a complex system. Queries: p.3 eqn (1). This is not autonomous with "t" on the RHS. Is this a mistake? If not there is no steady state. eqn (4): do not use F_o for both the function and the constant in the last expression. p.4 eqn (5): surely it is $|u|$, not u, in the two nregions. line 81: write down the expressions for the steady-state...they are simple enough. p.4 line 99: The phase spac is three dimensional, so the figures in #2 will be projections. This makes it harder for the idea of a separatrix to be applicable. Need to rethink this. p.6 eqn (6): this is not the usual way to write a stochastic d.e. It should be $du = ...dt + ...d\xi$ Now it is autonomous. What ensured this?

Interactive comment on Nonlin. Processes Geophys. Discuss., 1, 1735, 2014.