Nonlin. Processes Geophys. Discuss., 1, C569–C570, 2014
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Nonlinear Processes in Geophysics
Discussions
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Interactive comment on "Non-Gaussian interaction information: estimation, optimization and diagnostic application of triadic wave resonance" *by* C. A. L. Pires and R. A. P. Perdig ao

Anonymous Referee #1

Received and published: 19 October 2014

Review of 'Non-Gaussian interaction information: estimation, optimization and diagnostic application of triadic wave resonances' by Pires and Perdigao

Recommendation: Minor revisions

This study develops a framework for non-Gaussian interaction information. This framework allows to find nonlinear correlations. The authors apply this to triad wave interactions in the Lorenz-95 (which is also often referred to as the Lorenz 96 model). This is an interesting paper and should be accepted for publication after some minor revisions.

1) It is not so clear to me what we have now learned by applying this new framework to the Lorenz-95 model. Okay, there are nonlinear correlations but does their knowledge

potentially improve predictability? Do we learn something new about the dynamics? I encourage the authors to discuss this in section 5.

2) Page 1550, line 16: I don't understand the meaning of 'amount of constraint'. That sentence should be rewritten to make it understandable.

3) Page 1553, line 2: Correct 'dependente' to 'dependence'

4) Page 1556, line 6: Correct 'irst' and 'hird'

5) Page 1542, line 3: Correct 'Franzke and Majda 2007' to 'Franzke et al. 2007'

Interactive comment on Nonlin. Processes Geophys. Discuss., 1, 1539, 2014.