Geosci. Model Dev. Discuss., 6, C2242–C2244, 2013
www.geosci-model-dev-discuss.net/6/C2242/2013/

Geoscientific Model Development
Discussions
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Interactive comment on "A 24-variable low-order coupled ocean–atmosphere model: OA-QG-WS v2" *by* S. Vannitsem and L. De Cruz

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An independent implementation of the model OA-QG-WS v2 is now available as a supplement to this comment. This version is written in Lua, a small and powerful high-level programming language. It is optimized for LuaJIT, a just-in-time compiler for Lua, and runs at a speed comparable to the Fortran version.

The aim of this second version is twofold. First, it acts as a verification of the correctness of the model calculations. The correspondence between the model output of the two independent implementations is shown in Fig. 1. The two trajectories diverge due to the chaotic nature of the system, which amplifies the slight numerical differences. However, this divergence only occurs after about 60 days.

Secondly, this version is readily modifiable, allowing the reader to easily explore the presented model's dynamics. Documentation is also provided.

Please also note the supplement to this comment:
http://www.geosci-model-dev-discuss.net/6/C2242/2013/gmdd-6-C2242-2013-supplement.zip

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Interactive comment on Geosci. Model Dev. Discuss., 6, 6569, 2013.

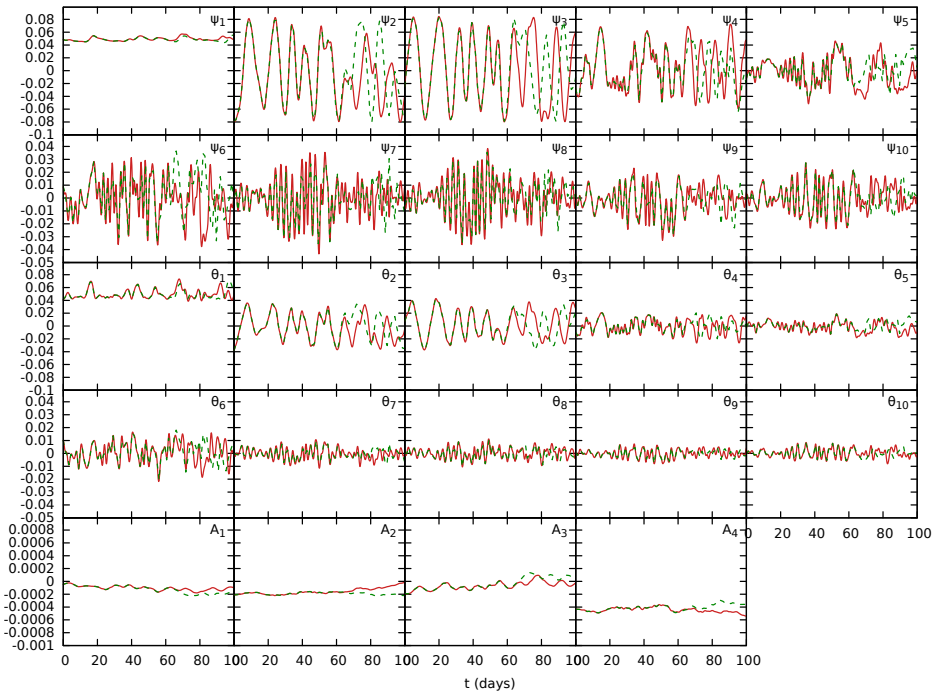

Fig. 1. Two sample trajectories for all 24 model variables, calculated using the Fortran (red full line) and Lua (green dashed line) implementations of OA-QG-WS v2.