

From: **Patrick Frank** pfrank830@earthlink.net
Subject: Re: JGR- Atmospheres: 2013JD021338 (Ghan)
Date: May 7, 2014 at 8:40 PM
To: jgr-atmospheres@agu.org

PF

Dear Prof. Ghan,

Please recall that my email of 23 March included a full response to the submission #2 reviews. The responses did not include the library and data-base research on linear response theory. However, the response files can be amended to include those results and sent again, if that will be helpful.

With respect to the manuscript, I'm not sure what you're asking. Are you requesting an entirely new study?

The present manuscript develops the method of propagating physical error, validates it against a large number of GCMs, applies it to real (SRES) air temperature projections, and discusses the implications and meaning of the results.

I could add a paragraph at the end saying that the method, for the first time, allows evaluation of climate models by physical error, as opposed to statistical variance. This seems like a valuable advance in the field, in that climate scientists will be able to assess the physical accuracy of a projection, as opposed to its statistical precision. This will facilitate improvement of the physics within climate models, themselves.

But I don't know how to disguise or make palatable the main result, which is that climate models currently have no predictive power; at least as regards air temperature.

Please understand: the study is an error analysis. It is not about the climate system. The new method of model error analysis will facilitate study of the climate system only by allowing a far more challenging and physically relevant evaluation of climate models.

Perhaps the question is whether JGR-Atmos. is interested in climate models themselves, and knowing whether the climate simulation studies published in JGR actually have any predictive power or explanatory relevance. The manuscript study addresses this question.

I can see that if climate physics is the sole purview of JGR-Atmos., then the question of the physical fidelity of CMIP5 climate models may be of no interest. If that's the case, then I respectfully request that you might kindly recommend a journal where this question is of interest.

Finally, I very much appreciate your patience and consideration; thank-you very much for that.

Yours sincerely,

Pat Frank

Patrick Frank, Ph.D.
Palo Alto, CA 94301
email: pfrank830@earthlink.net
++++
These things are, we conjecture, like the truth;
But as for certain truth, no one has known it.

Xenophanes, 570-500 BCE
++++

On May 7, 2014, at 9:15 AM, jgr-atmospheres@agu.org wrote:

Patrick, I invite you to submit a manuscript that introduces this technique as applied to climate simulations. In your submission, you will have to submit a response to reviewer comments file. I recommend a constructive manuscript that focuses on what can be learned about the climate system from this technique, and how it might guide interpretation of climate model simulations.

Steve Ghan
Editor-in-Chief
JGR-Atmospheres

