Interactive comment on “Influence of the compiler on multi-CPU performance of WRFv3” by T. Langkamp

T. Langkamp

thomas.langkamp@uni-hamburg.de

Received and published: 3 May 2011

Dear Referee,

first of all thank you for your detailed review. Before I go into detail by replying to your specific comments one by one (I will do that tomorrow) I want to point out only one issue, which struggled me even before you mentioned it in your comment. You wrote:

"It is known as well that the model performance can differ between various compilers and compiler options chosen. (...) having not a single citation included from a peer review journal should not be the standard for publications."

So I definately agree, that it is known, that different compilers lead to different performance, and that the results are published for many software-products - except for
WRF. If I am wrong, and I just have failed to find those peer reviewed articles, which compared WRFs performance on different compilers on a single machine, then please add some references.

Thus the main goal of this paper was to close this (potential?) gap and to get an idea of how big the difference in performance is for WRF. While I wrote the paper some findings about compiler-comparisons were published as non peer reviewed presentations. I only included them because they were the only ones, pointing out compiler-related differences for WRF. Again, to make this clear: I wrote that similar findings were published lately "in two presentations (...) by the HPC Advisory Council (December 2010) and Sankaran (October 2010) (...)", so both not in form of a paper and hence not peer reviewed. Thus I concluded, it would still be worth finishing the paper to have at least one peer reviewed WRF-compiler-benchmark in the future. If this is correct, I will try to correct all the other shortcommings of the paper. If it is not correct, and there are already peer reviewed WRF-compiler-benchmarks, it might not be worth the effort.

Thank you for your efforts, yours sincerely, Thomas Langkamp

References:

- HPC Advisory Council: Weather Research and Forecasting (WRF) performance benchmark and profiling, best practices of the HPC advisory council,
  www.hpcadvisorycouncil.com/best_practices.php
  last access: 3 May 2011, 2010.

- Sankaran, L.: System Tuning and Application Optimization for HPC, Hewlett-Packard Company,
  www.cbtechinc.com/?LinkServID=68BA8DCC-FD89-E9E2-D3AEFD4E23C4A410&showMeta=0
last access: 3 May 2011, 2010.

Interactive comment on Geosci. Model Dev. Discuss., 4, 547, 2011.