

Interactive comment on “Development of efficient GPU parallelization of WRF Yonsei University planetary boundary layer scheme” by M. Huang et al.

Anonymous Referee #1

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In this article, the authors port the WRF YSU PBL scheme onto NVIDIA Tesla K40 GPU. With some optimizations, the GPU code gets a good speedup comparing with CPU-only code. I have some concerns about the paper. First, the NVIDIA Tesla K40 GPU is the state-of-art accelerator. But the Intel Xeon E5-2603 is not. The comparison may be a little unfair. Second, the baseline CPU code has not been well tuned. At least the optimization with height dependence release can also be exploited on CPU. Third, using share memory is a general technique on GPU. According the Section 4.2, you just simply use more L1 cache to get better performance. Have you tried to use share memory for the better locality?

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