

Task 10 (OPTIONAL) GPU axpy

This task is optional as it requires two potentially problematic components: access to a GPU [this could be done by using Google Colab?] and the ability to set up CUDA drivers and compilers.

If you have the capability to program a GPU, then the task is to code the same (d)axpy function using both CUDA directly (which is only possible for NVIDIA GPUs, with some caveats, including the use of OpenCL) and OpenACC.

Verify the correctness of both results and benchmark the different solutions on both GPU and CPU platforms.