Introduction to CUDA Parallel Programming   Homework Assignment 4
April, 2025

1. Dot-product

Write your own CUDA code for finding the dot-product of 2 real vectors with N-GPUs, which generalizes the 1-GPU code in
twcp1:/home/cuda_lecture_2025/vecDotProduct/vecDot.cu
Test your code with 2 GPUs, using random vectors of size 40960000 elements generated by the routine RandomInit. Also, determine the optimal block size and grid size for this problem.

As usual, your homework report should include your source codes, results, and discussions (without *.exe files). The discussion file should be prepared with a typesetting system, e.g., LaTeX, Word, etc., and it is converted to a PDF file. All files should be zipped into one gzipped tar file, with a file name containing your student number and the problem set number (e.g., r05202043_ps4.tar.gz). Please send your homework with the title "your_student_number_HW4" to twchiu@phys.ntu.edu.tw before 17:00, June 11, 2025 (deadline for all problem sets).