Programowanie Równoległe na Architekturach Wielordzeniowych

Parallel programming for multi-core architectures

2024/2025

L3

Task:

Implement quick sort algorithm using dynamic parallelism.

This classes contains two sample codes. First one is simple sample code which prints each call of kernel, called from parent kernel. Second one is practical usage of dynamic parallelism in simple integration application which ensure founded accuracy. Compilation of sample codes:

nvcc -rdc=true dynamic_parallelism.cu -o dynamic_parallelism

nvcc -rdc=true divide-and-conquer-CUDA-dynamic-parallelism1.cu -o divide-dynamic

Additional sources:

https://developer.download.nvidia.com/GTC/PDF/GTC2012/PresentationPDF/S0338-GTC2012-CUDA-Programming-Model.pdf
https://developer.nvidia.com/blog/cuda-dynamic-parallelism-api-principles/