

Test QUDA with AMD GPUs on ROCm Platform

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Lattice QCD is a non-perturbative approach to solving the Quantum Chromodynamics (QCD) theory of quarks and gluons, using Monte Carlo method and technique analogous to statistical physics. QUDA, which is written mainly for NVIDIA GPUs in CUDA, is an open source library for Lattice QCD aimed to accelerating computing. And ROCm is a new open GPU Computing platform, compatible with AMD GPUs, as well as NVIDIA's. We are porting QUDA from CUDA to ROCm platform, and testing its correctness and performance, to examine the feasibility of studying Lattice QCD on AMD GPUs via QUDA, and providing a reference for further Lattice QCD software deployment.

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