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Performance of Maxwell GPUs and Optimization of Non-Perturbative Renormalization codes.

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Matching factors for the four-fermion operators relevant to B_K are obtained using the Non-Perturbative Renormalization(NPR) method in the RI-MOM scheme. Our NPR codes are calculated in Double Precision(DP) and optimized on Fermi GPU. NVIDIA released The GTX Titan X based on the Maxwell architecture. The Single Precision(SP) calculation performance of the GTX Titan X is improved, but the ratio of DP performance to SP performance is low. Hence, We optimize NPR codes on GTX Titan X and measure its scalability on Multi GPUs.

And, we measure the performance of GTX Titan X using our conjugate gradient(CG) solver.

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