

Determination of the $N_f=12$ step scaling function using Möbius domain wall fermions

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We calculate the step scaling function for twelve fundamental flavors nonperturbatively by determining the gradient flow coupling on gauge field configurations generated with dynamical stout smeared Möbius domain wall fermions and Symanzik gauge action. Using Zeuthen, Symanzik, and Wilson flow we measure the energy density with three different operators. Our updated analysis is now based on up to five volume pairs ranging from $L^4 = 8^4$ up to 32^4 . Our new results confirm the previously observed discrepancy with results obtained from staggered fermion simulations.

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