HMC algorithm with multiple time scale integration and mass preconditioning

Presenter: Carsten Urbach

C.Urbach, K.Jansen, A.Shindler

Abstract: We present a variant of the HMC algorithm with mass preconditioning (Hasenbusch acceleration) and multiple time scale integration, which is straightforward to implement and can be used in combination with a wide variety of lattice dirac operators. We show that its performance is comparable to the recently proposed HMC variant with domain decomposition as preconditioner. We give an update of the "Berlin Wall" figure, comparing the performance of our variant of the HMC algorithm to other published performance data.