



Contribution ID: 227

Type: **Talk**

Update on staggered Wilson fermions

Wednesday, 25 June 2014 09:40 (20 minutes)

An update on our ongoing research on staggered Wilson fermions (a 2-flavor staggered version of Wilson fermions) will be given. Previously we found that this formulation is 4-6 times more efficient than usual Wilson fermions for inverting the Dirac matrix in quenched backgrounds of a $16^3 \times 32$ lattice at $\beta=6$. Further results for $20^3 \times 40$ lattices will be reported which reveal that the efficiency increases notably with decreasing lattice spacing at fixed physical volume and also increases slightly with increasing volume at fixed lattice spacing. Construction of meson (and baryon) operators for this formulation will also be described, and numerical results for the pseudoscalar meson spectrum will be presented if they are ready in time.

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Session Classification: Theoretical Developments

Track Classification: Theoretical Developments