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Multigrid solver for clover fermions

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I will present an adaptive multigrid Dirac solver developed for Wilson clover fermions which offers order-of-magnitude reductions in solution time compared to conventional Krylov solvers. The solver incorporates even-odd preconditioning and mixed precision to solve the Dirac equation to double precision accuracy and shows only a mild increase in time to solution for decreasing quark mass. I will show actual time to solution on production lattices in comparison to conventional Krylov solvers and will also discuss the setup process and its relative cost to the total solution time.

Please, insert your presentation type (talk, poster)

talk

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