MARK ADAMS

Performance evaluation of multigrid solvers for block structured adaptive mesh refinement discretizations

609 Gott St Ann Arbor MI 48103 mfadams@lbl.gov

We evaluate performance of multigrid via algorithm parameters for solves of block structured adaptive mesh refinement discretizations. We consider algebraic and geometric multigrid, composite and level-by-level methods, multiplicative and additive smoothers, FAS and CS multigrid (although our test problems are linear). We test with scaling studies on the Cray XE6 Edison at NERSC.