

1154-65-2343

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Recently alternative versions of Gram-Schmidt orthogonalization algorithms have been formulated.  $O(\varepsilon)$  level orthogonality between the resulting basis vectors is achieved in CGS-2 (classical Gram-Schmidt algorithm with re-orthogonalization) with only one global reduction on a parallel computer for each basis vector formed. We have applied the one-reduce theorem to derive new Arnoldi-QR based eigenvalue algorithms and GMRES linear system solvers. In this talk we demonstrate how the recursive application of a projector can be applied to the pipelined Lanczos/conjugate gradient algorithm in order to maintain orthogonal Krylov vectors. (Received September 17, 2019)