TRUNCATED ITERATION, PRECONDITIONING AND REGULARIZATION

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Abstract

Iterative solution of ill-posed problems by truncated iteration has recently received considerable attention. We discuss the performance of iterative methods designed for the solution of nonsymmetric linear systems of equations, such as the GMRES, BiCG and QMR methods. Stopping criteria for the iterations are described. A new class of preconditioners for nonsymmetric and symmetric ill-posed problems is presented.