

TEMPLE UNIVERSITY
Department of Mathematics

Applied Mathematics and Scientific Computing Seminar

Room 617 Wachman Hall

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An overview of Krylov subspace methods for the iterative solution of large linear systems

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Abstract. Large sparse linear systems lie at the core of most problems in science and engineering. In particular, they appear in the numerical solution of linear and nonlinear differential equations. The family of numerical methods known as Krylov subspace methods are the preferred way of solving these problems. In this introductory talk we give an overview of these methods, including the popular conjugate gradients and GMRES methods, among others.