TEMPLE UNIVERSITY
Department of Mathematics

Applied Mathematics and Scientific Computing Seminar

Room 617 Wachman Hall

Wednesday, 19 September 2007, 4:00 p.m.

Modern iterative solution of linear systems (especially those coming from PDEs)

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Abstract.

This will be the first in a series of lectures on the modern iterative methods currently used for the computation (or approximation) of the solution of large linear systems of equations, especially those stemming from the discretization of differential equations.

Depending of the interest, there will be about 6-8 weekly lectures.

Topics to be covered include: Introduction to Krylov subspace methods. Projection methods. Examples, CG, GMRES, FOM, etc Examples, QMR, BiCGstab, etc. Important variants. Flexible and Inexact methods. Augmented and truncated methods.