

COURSE TITLE: SCIENTIFIC COMPUTING

INSTRUCTORS: Professor George A. Gravvanis

SYLLABUS:

Special topics in error analysis, sparse matrix technology, finite difference method, finite element method, preconditioned iterative methods, multigrid and multilevel methods, domain decomposition method, convergence analysis of iterative schemes, matrix reordering algorithms, numerical solution of non-linear systems of equations, eigenvalue problems, integral equations, software environments, application, project.

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