

NAME

scilin - available functions in a Scilab toolbox: Scilin, for iterative sparse systems.

DESCRIPTION

PRECOND module:

ilut - incomplete LU factorization with dual truncation strategy

ilutp - ilut with column pivoting

ilud - ilu with single dropping + diagonal compensation (~milut)

iludp - ilud with column pivoting

iluk - level-k ilu

ilu0 - simple ilu(0) preconditioning

milu0 - milu(0) preconditioning

SOLVERS module:

bicg - BiConjugate Gradient method

bicgstab - BiConjugate Gradient Stabilized method

cheby - chebyshev method with preconditioning

pcg - Conjugate Gradient method

cgs - Conjugate Gradient Squared method

gmres - Generalized Minimal RESidual method

jacobi - Jacobi method

qmr - Quasi Minimal Residual method

sor - Successive Over-Relaxation method

MATIO module:

mmread - reads contents of Matrix Market file into sparse or full matrix

mmwrite - writes sparse or dense matrix to Matrix Market formatted file

mminfo - extract size and storage information from a Matrix Market file

gen57pt - generates 5-point and 7-point matrices

MISC module:

lehmer - a symmetric positive definite N-by-N matrix

makefish - make a Poisson matrix

wathen - a random N-by-N finite element matrix

AUTHOR

Aladin Group - 25 April 2001