NAG Library Chapter Contents

f12 – Large Scale Eigenproblems

f12 Chapter Introduction

Function Name	Mark of Introduction	Purpose
f12aac	8	nag_real_sparse_eigensystem_init Initialization routine for (nag_real_sparse_eigensystem_iter (f12abc)) computing selected eigenvalues and, optionally, eigenvectors of a real nonsymmetric sparse (standard or generalized) eigenproblem
f12abc	8	nag_real_sparse_eigensystem_iter Selected eigenvalues and, optionally, eigenvectors of a real nonsymmetric sparse eigenproblem, reverse communication
f12acc	8	nag_real_sparse_eigensystem_sol Selected eigenvalues and, optionally, eigenvectors of a real nonsymmetric sparse eigenproblem, postprocessing for nag_real_sparse_eigensystem_iter (f12abc)
f12adc	8	nag_real_sparse_eigensystem_option Set a single option from a string (nag_real_sparse_eigensystem_iter (f12abc)/ nag_real_sparse_eigensystem_sol (f12acc)/ nag_real_banded_sparse_eigensystem_sol (f12agc))
f12aec	8	nag_real_sparse_eigensystem_monit Provides monitoring information for nag_real_sparse_eigensystem_iter (f12abc)
f12afc	8	nag_real_banded_sparse_eigensystem_init Initialization routine for (nag_real_banded_sparse_eigensystem_sol (f12agc)) computing selected eigenvalues and, optionally, eigenvectors of a real nonsymmetric banded (standard or generalized) eigenproblem
f12agc	8	nag_real_banded_sparse_eigensystem_sol Selected eigenvalues and, optionally, eigenvectors of a real nonsymmetric banded eigenproblem, driver
f12anc	8	nag_complex_sparse_eigensystem_init Initialization routine for (nag_complex_sparse_eigensystem_iter (f12apc)) computing selected eigenvalues and, optionally, eigenvectors of a complex sparse (standard or generalized) eigenproblem
f12apc	8	nag_complex_sparse_eigensystem_iter Selected eigenvalues and, optionally, eigenvectors of a complex sparse eigenproblem, reverse communication
f12aqc	8	nag_complex_sparse_eigensystem_sol Selected eigenvalues and, optionally, eigenvectors of a complex sparse eigenproblem, postprocessing for nag_complex_sparse_eigensystem_iter (f12apc)
f12arc	8	nag_complex_sparse_eigensystem_option Set a single option from a string (nag_complex_sparse_eigensystem_iter (f12apc)/nag_complex_sparse_eigensystem_sol (f12aqc))
f12asc	8	nag_complex_sparse_eigensystem_monit Provides monitoring information for nag_complex_sparse_eigensystem_iter (f12apc)
f12atc	24	nag_complex_banded_eigensystem_init Initialization function for nag_complex_banded_eigensystem_solve (f12auc) computing selected eigenvalues and, optionally, eigenvectors of a complex banded (standard or generalized) eigenproblem.
f12auc	24	nag_complex_banded_eigensystem_solve Selected eigenvalues and, optionally, eigenvectors of complex non-Hermitian banded eigenproblem, driver

f12fac	8	nag_real_symm_sparse_eigensystem_init Initialization routine for (nag_real_symm_sparse_eigensystem_iter (f12fbc)) computing selected eigenvalues and, optionally, eigenvectors of a real symmetric sparse (standard or generalized) eigenproblem
f12fbc	8	nag_real_symm_sparse_eigensystem_iter Selected eigenvalues and, optionally, eigenvectors of a real symmetric sparse eigenproblem, reverse communication
f12fcc	8	nag_real_symm_sparse_eigensystem_sol Selected eigenvalues and, optionally, eigenvectors of a real symmetric sparse eigenproblem, postprocessing for nag_real_symm_sparse_eigensystem_iter (f12fbc)
f12fdc	8	nag_real_symm_sparse_eigensystem_option Set a single option from a string (nag_real_symm_sparse_eigensystem_iter (f12fbc)/nag_real_symm_sparse_eigensystem_sol (f12fcc)/ nag_real_symm_banded_sparse_eigensystem_sol (f12fgc))
f12fec	8	nag_real_symm_sparse_eigensystem_monit Provides monitoring information for nag_real_symm_sparse_eigensystem_iter (f12fbc)
f12ffc	8	nag_real_symm_banded_sparse_eigensystem_init Initialization routine for (nag_real_symm_banded_sparse_eigensystem_sol (f12fgc)) computing selected eigenvalues and, optionally, eigenvectors of a real symmetric banded (standard or generalized) eigenproblem
f12fgc	8	nag_real_symm_banded_sparse_eigensystem_sol Selected eigenvalues and, optionally, eigenvectors of a real symmetric banded eigenproblem, driver