

NAG Library Chapter Contents

F02 – Eigenvalues and Eigenvectors

F02 Chapter Introduction

Routine Name	Mark of Introduction	Purpose
F02ECF	17	nagf_eigen_real_gen_eigsys Selected eigenvalues and eigenvectors of real nonsymmetric matrix (Black Box)
F02EKF	24	nagf_eigen_real_gen_sparse_arnoldi Selected eigenvalues and eigenvectors of a real sparse general matrix
F02FJF	11	nagf_eigen_real_symm_sparse_eigsys Selected eigenvalues and eigenvectors of sparse symmetric eigenproblem (Black Box)
F02GCF	17	nagf_eigen_complex_gen_eigsys Selected eigenvalues and eigenvectors of complex nonsymmetric matrix (Black Box)
F02SDF	8	nagf_eigen_real_band_geneig Eigenvector of generalized real banded eigenproblem by inverse iteration
F02WDF	8	nagf_eigen_real_gen_qu_svd QR factorization, possibly followed by SVD
F02WGF	22	nagf_eigen_real_gen_partialsvd Computes leading terms in the singular value decomposition of a real general matrix; also computes corresponding left and right singular vectors
F02WUF	14	nagf_eigen_real_triang_svd SVD of real upper triangular matrix (Black Box)
F02XUF	13	nagf_eigen_complex_triang_svd SVD of complex upper triangular matrix (Black Box)