

# NAG Library Chapter Contents

## C06 – Summation of Series

C06 Chapter Introduction

<b>Routine Name</b>	<b>Mark of Introduction</b>	<b>Purpose</b>
C06BAF	10	nagf_sum_accelerate Acceleration of convergence of sequence, Shanks' transformation and epsilon algorithm
C06DBF	6	nagf_sum_withdraw_chebyshev Sum of a Chebyshev series <b>Note:</b> this routine is scheduled for withdrawal at Mark 25, see Advice on Replacement Calls for Withdrawn/Superseded Routines for further information.
C06DCF	23	nagf_sum_chebyshev Sum of a Chebyshev series at a set of points
C06EAF	8	nagf_sum_withdraw_fft_real_1d_nowork Single one-dimensional real discrete Fourier transform, no extra workspace <b>Note:</b> this routine is scheduled for withdrawal at Mark 26, see Advice on Replacement Calls for Withdrawn/Superseded Routines for further information.
C06EBF	8	nagf_sum_withdraw_fft_hermitian_1d_nowork Single one-dimensional Hermitian discrete Fourier transform, no extra workspace <b>Note:</b> this routine is scheduled for withdrawal at Mark 26, see Advice on Replacement Calls for Withdrawn/Superseded Routines for further information.
C06ECF	8	nagf_sum_withdraw_fft_complex_1d_nowork Single one-dimensional complex discrete Fourier transform, no extra workspace <b>Note:</b> this routine is scheduled for withdrawal at Mark 26, see Advice on Replacement Calls for Withdrawn/Superseded Routines for further information.
C06EKF	11	nagf_sum_withdraw_convcorr_real_nowork Circular convolution or correlation of two real vectors, no extra workspace <b>Note:</b> this routine is scheduled for withdrawal at Mark 26, see Advice on Replacement Calls for Withdrawn/Superseded Routines for further information.
C06FAF	8	nagf_sum_fft_real_1d_rfnt Single one-dimensional real discrete Fourier transform, extra workspace for greater speed
C06FBF	8	nagf_sum_fft_hermitian_1d_rfnt Single one-dimensional Hermitian discrete Fourier transform, extra workspace for greater speed
C06FCF	8	nagf_sum_fft_complex_1d_sep Single one-dimensional complex discrete Fourier transform, extra workspace for greater speed
C06FFF	11	nagf_sum_fft_complex_multid_1d_sep One-dimensional complex discrete Fourier transform of multidimensional data
C06FJF	11	nagf_sum_fft_complex_multid_sep Multidimensional complex discrete Fourier transform of multidimensional data

C06FKF	11	nagf_sum_convcorr_real Circular convolution or correlation of two real vectors, extra workspace for greater speed
C06FPF	12	nagf_sum_fft_real_1d_multi_rfmt Multiple one-dimensional real discrete Fourier transforms
C06FQF	12	nagf_sum_fft_hermitian_1d_multi_rfmt Multiple one-dimensional Hermitian discrete Fourier transforms
C06FRF	12	nagf_sum_withdraw_fft_complex_1d_multi_rfmt Multiple one-dimensional complex discrete Fourier transforms <b>Note:</b> this routine is scheduled for withdrawal at Mark 26, see Advice on Replacement Calls for Withdrawn/Superseded Routines for further information.
C06FUF	13	nagf_sum_withdraw_fft_complex_2d_sep Two-dimensional complex discrete Fourier transform <b>Note:</b> this routine is scheduled for withdrawal at Mark 26, see Advice on Replacement Calls for Withdrawn/Superseded Routines for further information.
C06FXF	17	nagf_sum_fft_complex_3d_sep Three-dimensional complex discrete Fourier transform
C06GBF	8	nagf_sum_withdraw_conjugate_hermitian_rfmt Complex conjugate of Hermitian sequence <b>Note:</b> this routine is scheduled for withdrawal at Mark 26, see Advice on Replacement Calls for Withdrawn/Superseded Routines for further information.
C06GCF	8	nagf_sum_withdraw_conjugate_complex_sep Complex conjugate of complex sequence <b>Note:</b> this routine is scheduled for withdrawal at Mark 26, see Advice on Replacement Calls for Withdrawn/Superseded Routines for further information.
C06GQF	12	nagf_sum_withdraw_conjugate_hermitian_mult_rfmt Complex conjugate of multiple Hermitian sequences <b>Note:</b> this routine is scheduled for withdrawal at Mark 26, see Advice on Replacement Calls for Withdrawn/Superseded Routines for further information.
C06GSF	12	nagf_sum_withdraw_convert_herm2complex_sep Convert Hermitian sequences to general complex sequences <b>Note:</b> this routine is scheduled for withdrawal at Mark 26, see Advice on Replacement Calls for Withdrawn/Superseded Routines for further information.
C06HAF	13	nagf_sum_withdraw_fft_real_sine Discrete sine transform <b>Note:</b> this routine is scheduled for withdrawal at Mark 26, see Advice on Replacement Calls for Withdrawn/Superseded Routines for further information.
C06HBF	13	nagf_sum_withdraw_fft_real_cosine Discrete cosine transform <b>Note:</b> this routine is scheduled for withdrawal at Mark 26, see Advice on Replacement Calls for Withdrawn/Superseded Routines for further information.
C06HCF	13	nagf_sum_withdraw_fft_real_qtrsine Discrete quarter-wave sine transform <b>Note:</b> this routine is scheduled for withdrawal at Mark 26, see Advice on Replacement Calls for Withdrawn/Superseded Routines for further information.
C06HDF	13	nagf_sum_withdraw_fft_real_qtrcosine Discrete quarter-wave cosine transform <b>Note:</b> this routine is scheduled for withdrawal at Mark 26, see Advice on Replacement Calls for Withdrawn/Superseded Routines for further information.
C06LAF	12	nagf_sum_invlaplace_crump Inverse Laplace transform, Crump's method

C06LBF	14	nagf_sum_invlaplace_weeks Inverse Laplace transform, modified Weeks' method
C06LCF	14	nagf_sum_invlaplace_weeks_eval Evaluate inverse Laplace transform as computed by C06LBF
C06PAF	19	nagf_sum_fft_realherm_1d Single one-dimensional real and Hermitian complex discrete Fourier transform, using complex storage format for Hermitian sequences
C06PCF	19	nagf_sum_fft_complex_1d Single one-dimensional complex discrete Fourier transform, complex data type
C06PFF	19	nagf_sum_fft_complex_multid_1d One-dimensional complex discrete Fourier transform of multidimensional data (using complex data type)
C06PJF	19	nagf_sum_fft_complex_multid Multidimensional complex discrete Fourier transform of multidimensional data (using complex data type)
C06PKF	19	nagf_sum_convcorr_complex Circular convolution or correlation of two complex vectors
C06PPF	19	nagf_sum_fft_realherm_1d_multi_row Multiple one-dimensional real and Hermitian complex discrete Fourier transforms, using row ordered complex storage format for Hermitian sequences
C06PQF	19	nagf_sum_fft_realherm_1d_multi_col Multiple one-dimensional real and Hermitian complex discrete Fourier transforms, using column ordered complex storage format for Hermitian sequences
C06PRF	19	nagf_sum_fft_complex_1d_multi_row Multiple one-dimensional complex discrete Fourier transforms using complex data type
C06PSF	19	nagf_sum_fft_complex_1d_multi_col Multiple one-dimensional complex discrete Fourier transforms using complex data type and sequences stored as columns
C06PUF	19	nagf_sum_fft_complex_2d Two-dimensional complex discrete Fourier transform, complex data type
C06PVF	24	nagf_sum_fft_real_2d Two-dimensional real-to-complex discrete Fourier transform
C06PWF	24	nagf_sum_fft_hermitian_2d Two-dimensional complex-to-real discrete Fourier transform
C06PXF	19	nagf_sum_fft_complex_3d Three-dimensional complex discrete Fourier transform, complex data type
C06PYF	24	nagf_sum_fft_real_3d Three-dimensional real-to-complex discrete Fourier transform
C06PZF	24	nagf_sum_fft_hermitian_3d Three-dimensional complex-to-real discrete Fourier transform
C06RAF	19	nagf_sum_fft_real_sine_simple Discrete sine transform (easy-to-use)
C06RBF	19	nagf_sum_fft_real_cosine_simple Discrete cosine transform (easy-to-use)
C06RCF	19	nagf_sum_fft_real_qtrsine_simple Discrete quarter-wave sine transform (easy-to-use)

C06RDF

19

nagf\_sum\_fft\_real\_qtrcosine\_simple

Discrete quarter-wave cosine transform (easy-to-use)