

## NAG Library Chapter Contents

### e05 – Global Optimization of a Function

e05 Chapter Introduction – a description of the Chapter and an overview of the algorithms available

Function Name	Mark of Introduction	Purpose
e05jac	9	nag_glopt_bnd_mcs_init Initialization function for nag_glopt_bnd_mcs_solve (e05jbc)
e05jbc	9	nag_glopt_bnd_mcs_solve Global optimization by multi-level coordinate search, simple bounds, using function values only
e05jcc	9	nag_glopt_bnd_mcs_optset_file Supply optional parameter values for nag_glopt_bnd_mcs_solve (e05jbc) from external file
e05jdc	9	nag_glopt_bnd_mcs_optset_string Set a single optional parameter for nag_glopt_bnd_mcs_solve (e05jbc) from a character string
e05jec	9	nag_glopt_bnd_mcs_optset_char Set a single optional parameter for nag_glopt_bnd_mcs_solve (e05jbc) from an ‘ON’/‘OFF’-valued character argument
e05jfc	9	nag_glopt_bnd_mcs_optset_int Set a single optional parameter for nag_glopt_bnd_mcs_solve (e05jbc) from an integer argument
e05jgc	9	nag_glopt_bnd_mcs_optset_real Set a single optional parameter for nag_glopt_bnd_mcs_solve (e05jbc) from a real argument
e05jhc	9	nag_glopt_bnd_mcs_option_check Determine whether an optional parameter for nag_glopt_bnd_mcs_solve (e05jbc) has been set by you or not
e05jkc	9	nag_glopt_bnd_mcs_optget_int Get the setting of an integer valued optional parameter of nag_glopt_bnd_mcs_solve (e05jbc)
e05jlc	9	nag_glopt_bnd_mcs_optget_real Get the setting of a real valued optional parameter of nag_glopt_bnd_mcs_solve (e05jbc)
e05sac	23	nag_glopt_bnd_pso Global optimization using particle swarm algorithm (PSO), bound constraints only
e05sbc	23	nag_glopt_nlp_pso Global optimization using particle swarm algorithm (PSO), comprehensive
e05ucc	23	nag_glopt_nlp_multistart_sqp Global optimization using multi-start, nonlinear constraints
e05usc	24	nag_glopt_nlp_multistart_sqp_lsq Global optimization of a sum of squares problem using multi-start, nonlinear constraints

e05zkc	23	nag_glopt_opt_set Option setting routine for nag_glopt_bnd_pso (e05sac), nag_glopt_nlp_pso (e05sbc), nag_glopt_nlp_multistart_sqp (e05ucc) and nag_glopt_nlp_multistart_sqp_lsq (e05usc)
e05zlc	23	nag_glopt_opt_get Option getting routine for nag_glopt_bnd_pso (e05sac), nag_glopt_nlp_pso (e05sbc), nag_glopt_nlp_multistart_sqp (e05ucc) and nag_glopt_nlp_multistart_sqp_lsq (e05usc)

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