

# NAG Library Chapter Contents

## G03 – Multivariate Methods

G03 Chapter Introduction

<b>Routine Name</b>	<b>Mark of Introduction</b>	<b>Purpose</b>
G03AAF	14	nagf_mv_prin_comp Performs principal component analysis
G03ACF	14	nagf_mv_canon_var Performs canonical variate analysis
G03ADF	14	nagf_mv_canon_corr Performs canonical correlation analysis
G03BAF	15	nagf_mv_rot_orthomax Computes orthogonal rotations for loading matrix, generalized orthomax criterion
G03BCF	15	nagf_mv_rot_procrustes Computes Procrustes rotations
G03BDF	22	nagf_mv_rot_promax ProMax rotations
G03CAF	15	nagf_mv_factor Computes maximum likelihood estimates of the parameters of a factor analysis model, factor loadings, communalities and residual correlations
G03CCF	15	nagf_mv_factor_score Computes factor score coefficients (for use after G03CAF)
G03DAF	15	nagf_mv_discrim Computes test statistic for equality of within-group covariance matrices and matrices for discriminant analysis
G03DBF	15	nagf_mv_discrim_mahal Computes Mahalanobis squared distances for group or pooled variance-covariance matrices (for use after G03DAF)
G03DCF	15	nagf_mv_discrim_group Allocates observations to groups according to selected rules (for use after G03DAF)
G03EAF	16	nagf_mv_distance_mat Computes distance matrix
G03ECF	16	nagf_mv_cluster_hier Hierarchical cluster analysis
G03EFF	16	nagf_mv_cluster_kmeans <i>K</i> -means cluster analysis
G03EHF	16	nagf_mv_cluster_hier_dendrogram Constructs dendrogram (for use after G03ECF)
G03EJF	16	nagf_mv_cluster_hier_indicator Computes cluster indicator variable (for use after G03ECF)

G03FAF	17	nagf_mv_multidimscal_metric Performs principal coordinate analysis, classical metric scaling
G03FCF	17	nagf_mv_multidimscal_ordinal Performs non-metric (ordinal) multidimensional scaling
G03GAF	24	nagf_mv_gaussian_mixture Fits a Gaussian mixture model
G03ZAF	15	nagf_mv_z_scores Produces standardized values ( $z$ -scores) for a data matrix