

NAG Library Chapter Contents

E02 – Curve and Surface Fitting

E02 Chapter Introduction

Routine Name	Mark of Introduction	Purpose
E02ACF	1	Minimax curve fit by polynomials
E02ADF	5	Least-squares curve fit, by polynomials, arbitrary data points
E02AEF	5	Evaluation of fitted polynomial in one variable from Chebyshev series form (simplified parameter list)
E02AFF	5	Least-squares polynomial fit, special data points (including interpolation)
E02AGF	8	Least-squares polynomial fit, values and derivatives may be constrained, arbitrary data points
E02AHF	8	Derivative of fitted polynomial in Chebyshev series form
E02AJF	8	Integral of fitted polynomial in Chebyshev series form
E02AKF	8	Evaluation of fitted polynomial in one variable from Chebyshev series form
E02BAF	5	Least-squares curve cubic spline fit (including interpolation)
E02BBF	5	Evaluation of fitted cubic spline, function only
E02BCF	7	Evaluation of fitted cubic spline, function and derivatives
E02BDF	7	Evaluation of fitted cubic spline, definite integral
E02BEF	13	Least-squares cubic spline curve fit, automatic knot placement
E02CAF	7	Least-squares surface fit by polynomials, data on lines parallel to one independent coordinate axis
E02CBF	7	Evaluation of fitted polynomial in two variables
E02DAF	6	Least-squares surface fit, bicubic splines
E02DCF	13	Least-squares surface fit by bicubic splines with automatic knot placement, data on rectangular grid
E02DDF	13	Least-squares surface fit by bicubic splines with automatic knot placement, scattered data
E02DEF	14	Evaluation of fitted bicubic spline at a vector of points
E02DFF	14	Evaluation of fitted bicubic spline at a mesh of points
E02GAF	7	L_1 -approximation by general linear function
E02GBF	7	L_1 -approximation by general linear function subject to linear inequality constraints
E02GCF	8	L_∞ -approximation by general linear function
E02RAF	7	Padé approximants
E02RBF	7	Evaluation of fitted rational function as computed by E02RAF
E02ZAF	6	Sort two-dimensional data into panels for fitting bicubic splines
