Subject: Multidimensional curve fitting
Posted by keith on Fri, 19 May 1995 07:00:00 GMT
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I have a 2-dimensional dataset which I wish to parameterize with a scalar function of 2 variables in the form y=f(x1,x2) (and in the future I will extend this to higher dimensionalities). I would prefer a nonlinear function f(), but could make do with a polynomial of smallish order (<5).

The usual IDL fitting routines svdfit and curvefit only deal with 1-d functions. There is a function "sfit" which claims to perform surface fitting, but this can not provide uncertainties in the fit, nor even take account of the numerical values of x1, x2.

The JHU usr library funtion opfit2d doesn't really do what I want either. Although orthogonal polynomials are nice, I need the "ordinary" polynomial coefficients in order to taka analytical derivatives.

Do any of you have ideas/suggestions/routines which might help?

Thanks

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