Subject: Re: More problems with Curvefit
Posted by Craig Markwardt on Mon, 30 Jun 2003 18:43:08 GMT
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Paul van Delst <paul.vandelst@noaa.gov> writes:
> Try doing
> w = make_array(12, value = 1.0)
> or
> w = replicate(1.0, 12)
> to actually give you a vector for w. The IDL documentation is a wee bit misleading here as
> the actual words say "For no weighting, set Weightsi = 1.0" where the "i" suffix is an
> indicator that Weights is an array but it's not entirely clear (to me at least.)

As a side note, MPCURVEFIT, and the other "MP" fitting programs can accept either a scalar or a vector for the uncertainties or weights. Either way it does the "right thing." And of course the MP fitting programs do not necessarily require the user to compute function derivatives.

To Heather Williams, the original poster, you should be aware that your fitting function is degenerate, since it contains a linear combination of the *same* basis function. This leads to a singular normal matrix, and takes a canned routine like CURVEFIT on a trip to la-la land. This effect is further exacerbated by the choice of initial conditions (both coefficients equal). MPCURVEFIT is more robust in this sense, since it will do a singular value decomposition in the face of a singular matrix.

Happy fitting!
Craig

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