
Subject: Re: Notes on CURVEFIT.PRO

Posted by [landsman](#) on Tue, 06 Oct 1992 16:42:00 GMT

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In article <5OCT199223161224@stars.gsfc.nasa.gov>, landsman@stars.gsfc.nasa.gov (Wayne Landsman (301)-286-3625) writes...

>
> The version of CURVEFIT.PRO in the IDL User's library in V2.3.2 (and
> presumably in earlier versions) contains a typo in line 133
>
>
> FLAMBDA = FLAMBDA/100. ;DECREASE FLAMBDA BY FACTOR OF 10
>
> According to the versions of this procedure in both Bevington and "Numerical
> Recipes" the comment (and not the code) is correct, i.e. the denominator should
> be 10. and not 100.

Oops, I was mistaken -- the code is correct. In the IDL implementation, the fit is assumed to get worse so FLAMBDA is multiplied by 10 on every iteration. When chi square does decrease one then needs to divide by 100.

Sorry about the fire drill, and thanks to Mark Elliott for pointing out my error.

-Wayne Landsman

landsman@stars.gsfc.nasa.gov

Subject: Re: Notes on CURVEFIT.PRO

Posted by [knight](#) on Tue, 06 Oct 1992 17:16:37 GMT

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In article <5OCT199223161224@stars.gsfc.nasa.gov>, landsman@stars.gsfc.nasa.gov|> (They are simple enough to add by individual users but I think it would
> be better if RSI would standardize them.)

>
> (1) Add a keyword determining the maximum number of iterations to
> be attempted.
> (2) Add a keyword giving the chi square of the final fit.
> (3) Add a /DEBUG or /VERBOSE keyword giving the results of each
> iteration (these are now commented lines in the code)
> (4) Add a parameter to choose which parameters to hold constant and
> which parameters to vary

I'd make this a keyword, e.g., /FIXED=[1,0,0,1,0] to hold the first and fourth parameters constant.

> (5) Maybe use the STATUS parameter of the INVERT function to signal
> a small pivot element

I would also add:

(6) Optional upper and lower bounds for varied parameters.

--

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