Subject: Re: does curvefit() work ?
Posted by rivers on Sat, 29 Apr 1995 07:00:00 GMT
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In article <3nrpn4$c23@news.ycc.yale.edu>, aki@itsa.ucsf.edu (Andreas Kiefer) writes:
> I have to fit a modell function to given data and thought curvefit() would be a
> nice tool for doing that. In order to test curvefit() I ran the examples given
> in the online help. And no surprise curvefit calculated the 'right' fit.
> However when I slightly changed one of the starting values the fit was way off.
> I am aware that curvefit() finds local minimae only, but for such a _simple_
> example it should be able to converge to the proper fit. Did anybody encounter
> similar problems with curvefit(). Is there a workaround? Or is there another
> general fitting routine around? ( I know that there is a routine curfit() in
> the user_contrib/windt directory, but that one is most similar to curvefit and
> does not work either ). To be specific I used the example given in the online
> help for curvefit() under the math section. When I changed the starting value
> from a=[10.0,-0.1,2.0] to a=[.0,-0.1,2.0] the fit failed .....
>

The problem is that the example in the comments at the beginning of curvefit()
is WRONG. It does not compute the partial derivatives correctly, and hence does
not converge reliably.

There is a new version of curvefit() coming out in in IDL 4.0 which fixes lots
of problems. It will calculate finite difference estimates of partial derivates
for you if your function does not have easily computed analytical derivatives.

If you need a better version before 4.0 comes out, send me e-mail.

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