Subject: Re: regression with error bars Posted by Craig Markwardt on Sat, 22 May 2010 15:02:16 GMT View Forum Message <> Reply to Message

On May 22, 9:34 am, Meagan A. <u...@compgroups.net/> wrote: > Hello. > > Thank you for your reply and examples. I am a newbie to IDL and I've never used MPFIT. I read the tutorial from this website:http://cow.physics.wisc.edu/~craigm/idl/mpfittut.htm I and I wrote a pro to fit a line to x and y if we had errors in y only (+/-): > > pro test > > xval = [1,2,3,4,5]> yval = [1.2,1.9, 3.1, 4.5, 5] > errval = [0.1,0.001,0.1,0.05,0.2]> expr = 'P[0]+P[1]*X' ; line y=A+Bxresult = MPFITEXPR(expr, xval, yval,errval) > > plot, xval, yval, psym=2 > oplot, xval, result[0]+result[1]*xval > l=linfit(xval, yval) ;no errors considered oplot, xval, I[0]+I[1]*xval, linestyle=1 > end

> Are the error values (errval) used in this way in the function MPFITEXPR? And if not, after I calculate the residuals using your method, how do I feed it into the function MPFITFUN?

There are several MPFIT* functions. You can't use MPFITFUN or MPFITEXPR because you are changing the standard definition of "residual" because you have different + and - error bars. Instead you will need to use the core engine MPFIT(), and you will need to write a user function like I described in my previous post.

Craig