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Subject: x error bars in Curvefit / MPFIT

Posted by [Sean Davis](#) on Wed, 15 Jun 2005 18:25:36 GMT

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Hello All,

First, I apologize if this topic has been brought up before (I searched google groups and couldn't find a post on it).

I have some lab calibration data (x,y pairs, say), and I am trying to fit y as a function of x using the Markwardt fitting library (I suppose the same question could apply if I were using CURVEFIT, too).

In my fit, x represents a "raw" value read from an instrument (it's actually calculated from several other "raw" values), and y represents the "true" value from the calibration using a different instrument. The goal is to come up with a fit that can be applied to my raw data that best fits the "truth".

For fitting using MPFITFUN or similar programs, one typically provides error bars in the y value. But in my case, I have known errors in both x and y.

I know that in the simple case of fitting x and y to a line, errors in x can be expressed as errors in y, but is there an easier way to do this. The conversion of errors in x to errors in y does not seem very straightforward for complicated fits.

Thanks

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