
Subject: Re: IDL - EXP fitting function

Posted by [Maarten\[1\]](#) on Fri, 27 Mar 2009 10:13:52 GMT

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On Mar 26, 11:55 pm, Christopher Thom <ct...@oddjob.uchicago.edu> wrote:

>> Does the linfit function work when i would like my data to be fitted to
>> an EXP(a + bx) function? I didn't think that a linear function would be
>> correct when considering the EXP? Or am i getting confused going from
>> real space to log space!

>

> No, linfit() fits a linear model of the form $y = A + B \cdot x$, so it will not

> "just work". why don't you just fit a linear model in logspace?

>

> res = linfit(x, alog(yfit))

> a = res[0]

> b = res[1]

Be very careful with that. Small offsets (on measured data, usually way below the noise level) will throw this fit way off. A non-linear fit will probably give better results, especially if you have a realistic error model (Poisson noise on a decay signal for instance).

At the very least plot the fit over the data, and plot the residuals for visual inspection.

Maarten
