Subject: Re: LINFIT CHISQ and SIGMA values are correct??
Posted by Krishnakumar M.A on Wed, 05 Aug 2015 07:07:59 GMT
View Forum Message <> Reply to Message

On Wednesday, August 5, 2015 at 7:49:24 AM UTC+5:30, wlandsman wrote:
> You are giving linfit negative errors -- alog10(0.2) = -0.69897
>
> If you use the absolute value of alog10(err) you will get consistent results.
>
> But probably it is better to do your logarithmic transformation correctly
>
> if z = alog10(y) then dz = 0.434*dy/y (I think)
>
> where dy is your original err and dz is your transformed err .
>
> On Tuesday, August 4, 2015 at 3:54:39 PM UTC-4, Krishnakumar M.A wrote:
>> Hi,
>>
>> I was trying to do a linfit in the following data (I'm using IDL 6.3).
>>
>> ---
>>
>> x = [150.0, 235.0, 325.0, 410.0, 610.0]
>> y = [200.0, 35.0, 8.4, 3.0, 0.6]
>> err = [25.0, 5.0, 2.1, 0.8, 0.2]
>>
>> result = linfit(alog10(x),alog10(y),MEASURE_ERRORS=alog10(err), CHISQ=chi,
COVAR=covmatrix, SIGMA=error, YFIT=fit)

Thanks for the reply. I did not get any difference by giving abs(alog10(err)).

But I got better values for chisq and sigma when I used dz = 0.434*dy/y. Could you please tell me why a factor of 0.434?