Subject: Re: Newbie's question
Posted by Paolo Grigis on Thu, 20 Oct 2005 07:33:33 GMT
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ChiChiRuiz@gmail.com wrote:
> Hi there,
>
> I have a scatter plot which has the shape of a parabola, like y=x^2.
> I want to find the best curve fit to the scatter plot, so I used the
> function "curvefit" with no weights and with initial guesses (1.0, 2.0)
> i.e. y = 1.*x^(2.). So, here's the problem...when I use only the right
> half of the data points (i.e. x and y values are positive), I get the
> curvefit returns parameter (0.5, 1.5), which means, the best fit curse
> is y=.5*x^(1.75). I know the fit should be symmetric, so the same curve
> SHOULD fit the other half. Now unto the left half side of the data
> set, curvefit does not work anymore, and here's why, x^(1.5)=x^(3/2)
> and when x is a negative number, IDL returns "NaN" because it can't
> take the square root of a negative number, hence the entire procedure
> will not work. I ended up having to throw away half of my data points,
> and I'm not very comfortable with that. Any idea how to go around it
> or suggest another function to do the same thing?
What about fitting the data to the function a*abs(x)^b ?

Paolo

>
> Besides, I've thought about using "polyfit", but if I remember
> correctly, polyfit only takes in one x value vs. one y value. Scatter
> plot has one x value vs. several y values. I don't think it'll
> work in my case, but I may be wrong...
>
> TIA (thanks in advance)
>
> Angie
>