Subject: Newbie's question
Posted by ChiChiRuiz@gmail.com on Wed, 19 Oct 2005 22:06:53 GMT
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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?

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