Subject: Re: log log scale scatterplot
Posted by benjamin.castellani on Tue, 05 Dec 2017 21:34:38 GMT
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On Tuesday, December 5, 2017 at 11:21:27 AM UTC-7, sid wrote:
> Hello all,
> I need to plot in log log scale and it is a scatter plot and I need to get the slope and intercept after fitting with linfit. This needs to be plotted in logarithmic space. And also the correlation coefficient needs to be calculated in log-log space.
>
> I have 10 x values and 10 y values
> is this correct plot, alog10(x), alog10(y)
> or like this plot, x,y,/xlog,/ylog but I need the values in order to find the linfit.
>
> how to do this
> thanks

Here is a sample code that does what you need it to do:

```
;example data (5 points)
x = [1487,500,24,3455,2233]
y = [11,50,2400,32.3,111]

fit = linfit(alog(x),alog(y))
xfit=[0:max(alog(x)):max(alog(x))/100.]
yfit = xfit*fit[1]+fit[0]

p =  plot(alog(x),alog(y),layout=[2,1,1],symbol='o',linestyle=6,c olor='blue')
p2 = plot(xfit,yfit,/overplot)
```

NOTE: You can use either of your plot techniques. This will just change the actual labels on the axes. One will be just the log powers (it will show 3 for 1000), the other will be the data values in log form (it will show 10^3 for 1000)