Subject: Histogram & Cumulative Distribution Functions Posted by sdj on Fri, 27 Aug 2004 10:56:20 GMT

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Dear All,

I have the following problem to address and I was wondering if somebody could help me out:

I have a 1-D dataset which is "more or less" normally distributed. I would like to fit a gaussian distribution to it, then calculate the cumulative distribution function, and ultimately calculate the 95% percentile.

The 1-D dataset represents sst values over 300 months.

The steps I would like to go through are the following:

- i) Calculate the distribution function (histogram) of my original dataset
- i) Plot the resulting histogram of my original dataset ("SST Value" vs "No. of Obs")
- iii) Fit a Gaussian to the original dataset distribution function with the original SST dataset Mean and Standard Deviation values.
- iv) [O]Plot the resulting Gaussian distribution function.
- v) Calculate the cumulative distribution function of the resulting Gaussian distribution function.
- vi) Plot the cumulative distribution function ("SST value" vs "Percentage of Total Obs")
- vii) Calculate the 95% percentile value: i.e. what is the Variable Value within which 95% of the data is LE to.

I have tried playing around with the functions HISTOGRAM, HIST_EQUAL

and GAUSS (from the Johns Hopkins University/Applied Physics	
Laboratory) functions, and I manage to get to step no. iv), but from	
there on I cannot seem to progress. I have pasted the code to get to	
step no. iv below.	
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Thanks in advance for your help.
Regards, Pepe

Pepe S. D. Juevara

Any suggestions?

;doesn't work!