

KURTOSIS PLOT

PURPOSE

Generates a subsample kurtosis versus subsample index plot.

DESCRIPTION

The subsample kurtosis is the kurtosis of the data in the subsample. The kurtosis plot is used to answer the question: "Does the subsample distribution change over different subsamples?" It consists of:

Vertical axis = subsample kurtosis;

Horizontal axis = subsample index.

In addition, a horizontal line is drawn representing the full sample kurtosis. The appearance of the 2 traces is controlled by the first 2 settings of the LINES, CHARACTERS, SPIKES, BARS, and similar attributes.

SYNTAX

KURTOSIS PLOT <y> <x> <SUBSET/EXCEPT/FOR qualification>

where <y> is the response (= dependent) variable;

<x> is the subsample identifier variable (this variable appears on horizontal axis);

and where the <SUBSET/EXCEPT/FOR qualification> is optional.

EXAMPLES

KURTOSIS PLOT Y X

KURTOSIS PLOT Y X SUBSET X + 2 TO 10

NOTE

The kurtosis is the standardized fourth central moment. It is a measure of the "peakedness" of a distribution.

DEFAULT

None

SYNONYMS

K PLOT

RELATED COMMANDS

CHARACTERS	=	Sets the type for plot characters.
LINES	=	Sets the type for plot lines.
SKEWNESS PLOT	=	Generates a skewness plot
VARIANCE PLOT	=	Generates a variance plot
STANDARD DEVIATION PLOT	=	Generates a standard deviation plot.
RANGE PLOT	=	Generates a range plot
MEAN PLOT	=	Generates a mean plot.
MEDIAN PLOT	=	Generates a median plot.
BOX PLOT	=	Generates a box plot.
S CHART	=	Generates a standard deviation control chart.
PLOT	=	Generates a data or function plot.

APPLICATIONS

Quality Control

IMPLEMENTATION DATE

88/2

PROGRAM

```
SKIP 50
SET READ FORMAT 3F4.0,F5.0,F6.0,F3.0,2F9.0
READ PBF11.DAT YEAR DAY BOT SD F11 FLAG WV CO2
.
RETAIN YEAR DAY BOT SD F11 WV CO2 FLAG SUBSET FLAG 0
LET MONTH=INT(DAY/30.25)+1
.
XLIMITS 0 15
CHARACTER X BLANK
LINE BLANK SOLID
Y1LABEL KURTOSIS
X1LABEL GROUPS
TITLE AUTOMATIC
KURTOSIS PLOT WV MONTH
```

