

AUTOCORRELATION STATISTIC PLOT

PURPOSE

Generates a subsample autocorrelation versus subsample index plot.

DESCRIPTION

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

Vertical axis = subsample autocorrelation;

Horizontal axis = subsample index.

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

SYNTAX

AUTOCORRELATION STATISTICS PLOT <y> <x> <SUBSET/EXCEPT/FOR qualification>

where <y> is a response variable;

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

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

EXAMPLES

AUTOCORRELATION STATISTICS PLOT Y X

AUTO STAT PLOT Y X1

NOTE

AUTOCORRELATION PLOT is a distinct command (see the documentation for the CORRELATION PLOT command for details), so the word STATISTICS is required.

DEFAULT

None

SYNONYMS

None

RELATED COMMANDS

| | | |
|-------------------------|---|---|
| CHARACTERS | = | Sets the character symbols for plot characters. |
| LINES | = | Sets the line types for plot lines. |
| MEAN PLOT | = | Generates a mean versus subset plot. |
| STANDARD DEVIATION PLOT | = | Generates a standard deviation versus subset plot. |
| CORRELATION PLOT | = | Generates an auto-, cross-, or partial auto-correlation plot. |
| AUTOCORRELATION | = | Computes the autocorrelation of a variable. |
| PLOT | = | Generates a data or function plot. |

APPLICATIONS

Exploratory Data Analysis

IMPLEMENTATION DATE

88/2

PROGRAM

```
SKIP 25  
READ SUNSPOT.DAT Y MONTH  
CHARACTER CIRCLE BLANK  
LINE BLANK SOLID  
XLIMITS 1 12  
XTIC OFFSET 0.5 0.5  
X1TIC MARK LABEL FORMAT ALPHA  
X1TIC MARK LABEL CONTENTS JAN FEB MARCH APRIL MAY JUNE JULY AUG SEP ...  
OCT NOV DEC  
MINOR XTIC MARK NUMBER 0  
Y1LABEL AUTOCORRELATION  
TITLE AUTOMATIC  
AUTOCORRELATION STAT PLOT Y MONTH
```

