

SINE AMPLITUDE PLOT

PURPOSE

Generates a subsample sine amplitude versus subsample index plot.

DESCRIPTION

The subsample sine amplitude is the approximate least squares estimate of the amplitude in a single-frequency sinusoidal model based on data from that subsample only. The sine amplitude plot is used to answer the question: "Does the subsample amplitude change over different subsamples?" It consists of:

Vertical axis = subsample sine amplitude;
Horizontal axis = subsample index.

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

SYNTAX

SINE AMPLITUDE PLOT <y> <x> <SUBSET/EXCEPT/FOR qualification>

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

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

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

EXAMPLES

SINE AMPLITUDE PLOT Y X
SINE AMPLITUDE PLOT Y X SUBSET X > 2

DEFAULT

None

SYNONYMS

SA PLOT

RELATED COMMANDS

CHARACTERS	=	Sets the type for plot char.
LINES	=	Sets the type for plot lines.
SINE FREQUENCY PLOT	=	Generates a sine frequency plot.
COMPLEX DEMOD AMPL PLOT	=	Generate a complex demodulation amplitude plot.
COMPLEX DEMOD PHASE PLOT	=	Generate a complex demodulation phase plot.
RANGE PLOT	=	Generates a range plot.
MEAN PLOT	=	Generates a mean plot.
AUTOCORRELATION PLOT	=	Generates a autocorrelation plot.
SPECTRAL PLOT	=	Generates a spectral plot.
BOX PLOT	=	Generates a box plot.
PLOT	=	Generates a data or function plot.

APPLICATIONS

Time Series 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
XITIC MARK LABEL FORMAT ALPHA
XITIC MARK LABEL CONTENTS JAN FEB MARCH APRIL MAY JUNE JULY AUG SEP ...
OCT NOV DEC
MINOR XTIC MARK NUMBER 0
YILABEL SINE AMPLITUDE
TITLE AUTOMATIC
SINE AMPLITUDE PLOT Y MONTH
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