

Package Name: NORMTRUNC

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Add-in Type: Global

Default Proc Name: normtrunc

Default Menu Text: Truncated Normal Random Numbers

Interface: Dialog and Command Line

Description: This add-in generates random draws from truncated normal distribution using the rejection method. Detailed information on this type of sampling can be found in http://en.wikipedia.org/wiki/Rejection_sampling

Dialog: Upon running the add-in from the menus or command line, a dialog will appear:

Truncated Normal Random Numbers

Enter the parameters of distribution:

Mean: 0

Standard Deviation: 1

Output type:

☐ Vector

☒ Series

☐ Matrix

Sample period (for series): @all

Number of rows (for vector or matrix):

Number of columns (for vector or matrix):

Specify the truncation bounds:

Lower bound:

Upper bound:

If you do not want any lower or upper bound, simply leave the box empty.

Give a name to your output:

Add-in written by Eren Ocakverdi, 2014

OK Cancel

In the first two boxes, you should enter the parameters of normal distribution. Next, choose between the listed output formats for results. If you select Vector, then you should enter a number either for rows or the columns. As for the Matrix type, you should enter them both. In order to obtain a truncated random sample, you should at least supply a lower or an upper bound.

Command Line:

Syntax-1: normtrunc

Syntax-2: normtrunc(options)

Options:

Argument	Type	Explanation
mean	<i>numeric</i>	Mean parameter for normally distributed random sample
sigma	<i>numeric</i>	Standard deviation for normally distributed random sample
output	<i>numeric</i>	Type of results (1 = "Vector", 2 = "Series (default)", 3 = "Matrix")
smpl	<i>string</i>	Sample period (<i>valid for series only</i>)
rows	<i>numeric</i>	Number of rows (<i>for vector / matrix</i>)
columns	<i>numeric</i>	Number of columns (<i>for vector / matrix</i>)
lower	<i>numeric</i>	Lower bound for truncated distribution
upper	<i>numeric</i>	Upper bound for truncated distribution
name	<i>string</i>	Output name for the results
prompt		Open the GUI

Examples:

- 1) normtrunc(mean=5,sigma=2)
- 2) normtrunc(mean=5,sigma=2,output=1,rows=95,lower=3,upper=8,name=myvec)
- 3) normtrunc(mean=5,sigma=2,output=3,rows=50,columns=10,upper=9,name=mymat)