

References

NIST/SEMATECH, Bartlett's Test, in *NIST/SEMATECH e-Handbook of Statistical Methods*, <<http://www.itl.nist.gov/div898/handbook/eda/section3/eda357.htm>>, 2005.

See Also

Chapter III-12, **Statistics** for a function and operation overview.

StatsVonMisesCDF

StatsVonMisesCDF(x, a, b)

The StatsVonMisesCDF function returns the von Mises cumulative distribution function

$$F(\theta; a, b) = \frac{1}{2\pi I_0(b)} \int_0^\theta \exp(b \cos(x - a)) dx.$$

where $I_0(b)$ is the modified Bessel function of the first kind (**bessI**), and

$$0 < \theta \leq 2\pi$$

$$0 < a \leq 2\pi$$

$$b > 0.$$

References

Evans, M., N. Hastings, and B. Peacock, *Statistical Distributions*, 3rd ed., Wiley, New York, 2000.

See Also

Chapter III-12, **Statistics** for a function and operation overview; the **StatsVonMisesPDF**, **StatsInvVonMisesCDF**, and **StatsVonMisesNoise** functions.

StatsVonMisesNoise

StatsVonMisesNoise(a, b)

The StatsVonMisesNoise function returns a pseudo-random number from a von Mises distribution whose probability density is

$$f(\theta; a, b) = \frac{\exp[b \cos(\theta - a)]}{2\pi I_0(b)},$$

where I_0 is the zeroth order modified Bessel function of the first kind.

References

Best, D.J., and N. I. Fisher, Efficient simulation of von Mises distribution, *Appl. Statist.*, 28, 152-157, 1979.

See Also

StatsVonMisesCDF, **StatsVonMisesPDF**, and **StatsInvVonMisesCDF**.

Noise Functions on page III-390.

Chapter III-12, **Statistics** for a function and operation overview

StatsVonMisesPDF

StatsVonMisesPDF(q, a, b)

The StatsVonMisesPDF function returns the von Mises probability distribution function

$$f(\theta; a, b) = \frac{\exp(b \cos(\theta - a))}{2\pi I_0(b)}.$$