

StatsGEVCDF

/T= <i>k</i>	Displays results in a table. <i>k</i> specifies the table behavior when it is closed. <i>k</i> =0: Normal with dialog (default). <i>k</i> =1: Kills with no dialog. <i>k</i> =2: Disables killing.
/Z	Ignores errors. V_flag will be set to -1 for any error and to zero otherwise.

Details

The input *srcWave* must contain angles in radians, can be any number of dimensions, can be single or double precision, and should not contain NaNs or INFs.

StatsHodgesAjneTest performs the standard Hodges-Ajne test, which simply tests for uniformity against the hypothesis that the population is not uniformly distributed around the circle. This test finds a diameter that divides the circle into two halves such that one contains the least number of data *m*, the test statistic.

Use /SA to perform the modified (Batschelet) test, which tests against the alternative that the population is concentrated somehow about the specified angle. The modified test counts the number of points *m'* in 90-degree neighborhoods around the specified angle. The test statistic is given by $C=n-m'$ where *n* is the number of points in the wave. The critical value is computed from the binomial probability density.

In both cases H_0 is rejected if the statistic is smaller than the critical value.

V_flag will be set to -1 for any error and to zero otherwise.

References

Ajne, B., A simple test for uniformity of a circular distribution, *Biometrika*, 55, 343-354, 1968.

See, in particular, Chapter 27 of:

Zar, J.H., *Biostatistical Analysis*, 4th ed., 929 pp., Prentice Hall, Englewood Cliffs, New Jersey, 1999.

See Also

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

StatsCircularMeans, **StatsCircularMoments**, **StatsWatsonUSquaredTest**, **StatsWatsonWilliamsTest**, and **StatsWheelerWatsonTest**.

StatsGEVCDF

StatsGEVCDF(*x*, μ , σ , ξ)

The StatsGEVCDF function returns the generalized extreme value cumulative distribution function.

$$F(x, \mu, \sigma, \xi) = \exp \left\{ - \left[1 + \xi \left(\frac{x - \mu}{\sigma} \right)^{-1/\xi} \right] \right\},$$

where

$$1 + \xi \left(\frac{x - \mu}{\sigma} \right) > 0,$$

and $\sigma > 0$.

See Also

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

StatsGEVPDF, **StatsEValuePDF**, **StatsEValueCDF**, **StatsInvEValueCDF**

StatsGEVPDF

StatsGEVPDF(*x*, μ , σ , ξ)

The StatsGEVPDF function returns the generalized extreme value probability distribution function.