

StatsFCDF	StatsNormalCDF	StatsVonMisesCDF
StatsFriedmanCDF	StatsParetoCDF	StatsQCDF
StatsGammaCDF	StatsPoissonCDF	StatsWaldCDF
StatsGeometricCDF	StatsPowerCDF	StatsWeibullCDF

Probability Distribution Functions

Probability distribution functions (PDF) are sometimes known as probability densities. In the case of continuous distributions, the area under the curve of the PDF for each interval equals the probability for the random variable to fall within that interval. The PDFs are useful in calculating event probabilities, characteristic functions and moments of a distribution.

The functions to calculate values from PDFs are as follows:

StatsBetaPDF	StatsGammaPDF	StatsParetoPDF
StatsBinomialPDF	StatsGeometricPDF	StatsPoissonPDF
StatsCauchyPDF	StatsHyperGPDF	StatsPowerPDF
StatsChiPDF	StatsLogNormalPDF	StatsRayleighPDF
StatsDExpPDF	StatsMaxwellPDF	StatsRectangularPDF
StatsErlangPDF	StatsBinomialPDF	StatsStudentPDF
StatsErrorPDF	StatsNCChiPDF	StatsTriangularPDF
StatsEValuePDF	StatsNCFPDF	StatsVonMisesPDF
StatsExpPDF	StatsNCTPDF	StatsWaldPDF
StatsFPDF	StatsNormalPDF	StatsWeibullPDF

Inverse Cumulative Distribution Functions

The inverse cumulative distribution functions return the values at which their respective CDFs attain a given level. This value is typically used as a critical test value. There are very few functions for which the inverse CDF can be written in closed form. In most situations the inverse is computed iteratively from the CDF.

The functions to calculate values from inverse CDFs are as follows:

StatsInvBetaCDF	StatsInvKuiperCDF	StatsInvQpCDF
StatsInvBinomialCDF	StatsInvLogisticCDF	StatsInvRayleighCDF
StatsInvCauchyCDF	StatsInvLogNormalCDF	StatsInvRectangularCDF
StatsInvChiCDF	StatsInvMaxwellCDF	StatsInvSpearmanCDF
StatsInvCMSSDCDF	StatsInvMooreCDF	StatsInvStudentCDF
StatsInvDExpCDF	StatsInvNBinomialCDF	StatsInvTopDownCDF
StatsInvEValueCDF	StatsInvNCFCDF	StatsInvTriangularCDF
StatsInvExpCDF	StatsInvNormalCDF	StatsInvUSquaredCDF
StatsInvFCDF	StatsInvParetoCDF	StatsInvVonMisesCDF