R function equal to excel CHIINV

Asked 10 years ago Modified 10 years ago Viewed 2k times

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I'm looking for a function which do the same thing as excel's CHIINV. From Microsoft documentation, the definition of CHIINV is Returns the inverse of the right-tailed probability of the chi-squared distribution

For example `=CHIINV(0.2,2)` return 3.21

The closest function I can found in R is geoR's dinvchisq However,

`dinvchisq(0.2,2)` return 1.026062

Please help!

R r chi-squared excel

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asked Dec 18, 2014 at 3:12

Decula

508 • 5 • 16

try `?Chisquare` (`?` =help) or `??"chi square"` (`??` =search) similarly for any other distribution, which shows you the function calls for cdf, pdf, inverse cdf and random number generation – Glen_b Dec 18, 2014 at 5:02

1 Answer

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4

What you want is ?qchisq. This takes a probability and a degrees of freedom, and outputs the associated quantile. Consider:

```
> qchisq(p=0.2, df=2, lower.tail=FALSE)
[1] 3.218876
```

Furthermore, according the the documentation, `dinvchisq()` is the density function (the height of the pdf at a given quantile) of the *inverse* of the chi-squared distribution. That is, 1/dchisq(). You need the quantile function, not the density function, and you don't want the inverse of the chi-squared distribution (although the confusion seems natural coming from Excel's function).

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edited Dec 18, 2014 at 14:54

answered Dec 18, 2014 at 3:22

gung - Reinstate Monica

11.9k 8 63 79