
Subject: Re: Help with the F-test. mpftest.pro in particular.
Posted by news.verizon.net on Fri, 06 Apr 2007 18:49:28 GMT
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On Apr 6, 11:55 am, "Gianguido Cianci" <gianguido.cia...@gmail.com>
wrote:

> Then I print the probability that the variances are similar due to
> pure chance

This is not what mpftest computes -- instead "The function MPFTEST()
computes the probability for a value drawn from the F-distribution to
equal or exceed the given value of F."

```
> print, mpftest(f, n, n)
> --> 0.47958397
>
```

So for the null hypothesis, one would expect to obtain a value larger
than the observed value of f about half the time, i.e. the null
hypothesis (that the two variances come from the same distribution) is
consistent with the data.

For comparison, suppose the variance from the second dataset had been
1% larger

```
IDL> print, mpftest(f*1.01, n-1, n-1)
2.6478877e-07
```

then the null hypothesis could be rejected with very high
confidence. (Then sensitivity to the value of f comes because of
the large number (1e6) of degrees of freedom in your example.) --
Wayne

P.S. For those not in the know, MPFTEST is not an intrinsic IDL
function, but part of Craig Markwardt's great library
<http://astro.physics.wisc.edu/~craigm/idl/idl.html>
