
Subject: Re: significance of a linear regression

Posted by jochem.verelst@gmail.com on Sat, 07 Apr 2007 09:07:51 GMT

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On Apr 7, 5:34 am, Craig Markwardt

<craigm...@REMOVEcow.physics.wisc.edu> wrote:

> "jochem.verelst@gmail.com" <jochem.verelst@gmail.com> writes:

>> Hi IDL gurus,

>

>> I am much in favor of the IDL way, but being a newbie, it still causes
>> me big headache.

>

>> So this is the question:

>

>> Just as in SPSS, I wanted calculate the significance of linear
>> regression. The function REGRESS is very handy, as it also provides
>> the F-value by means of the keyword FTEST. Luckily this is the same F-
>> value as calculated in SPSS (I just tested). However, SPSS also
>> provides the congruent p-value. And this is what matters to have an
>> idea of the significance. REGRESS does not provide such a keyword. So,
>> has anyone an idea how to calculate the significance of a linear
>> regression?

>

> I'm not sure what a "congruent p-value" is, but if you mean the
> Pearson's correlation coefficient, then you can use the standard
> CORRELATE() function. But surely that must be the same as the R value
> returned by REGRESS()?

>

> Craig

>

> --

> -----

> Craig B. Markwardt, Ph.D. EMAIL: craigm...@REMOVEcow.physics.wisc.edu

> Astrophysics, IDL, Finance, Derivatives | Remove "net" for better response

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Thanks for the info Craig,

Though, I already figured out the CORRELATE function and keyword.

However, this is not exactly what i meant. Although it is recognized that the R-square statistic is a better measure of the strength of relationship, from the F-test, at least in SPSS, the significance value (p) can be calculated. When it is smaller than 0.05, then the variation explained by the model is not due to chance. I wish to calculate this significance because then I have an automated threshold to decide whether a relationship is valid.

Hopefully there is an easy way to calculate the significance.

Jochem
