Subject: significance probability when using CORRELATE?
Posted by Linda May on Wed, 19 Sep 2001 19:02:43 GMT
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I work with oceanographic data using IDL 5.4 (on a Compaq Alpha running Tru64
Unix). Often, in preliminary analyses, I use CORRELATE between two sets of
data. For example, is there a linear association between wind and sea surface
temperature? However, it is important to know not only the correlation
coefficient, but also its significance probability.

In SAS, when I ask for the (linear Pearson) correlation coefficient of two
vectors, I am automatically given the significance probability of the
correlation. The (two-tailed) probability value reported by SAS comes from
a t distribution (symmetric with respect to the y-axis).

But I haven't been able to figure out how to obtain the significance probability
in IDL. I've investigated such routines as TM_TEST, but I am not a statistician
and it's not clear to me how I could use TM_TEST. The significance probability
seems so important to anyone using CORRELATE that surely there must be an
obvious and simple way to obtain it in IDL which I am overlooking. I've

searched a number of libraries, but haven't found any examples.

So I sheepishly tell you that for two years I've been switching back and

forth between IDL and SAS. This has become unbearably tacky in my view; thus, I
would be grateful if you could steer me in a helpful direction.

Cheers,
Linda

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