Subject: Re: t-testing in IDL
Posted by mariamalene on Thu, 24 Jan 2008 15:31:37 GMT
View Forum Message <> Reply to Message

On Jan 24, 3:52 pm, mmill...@iupui.edu (Michael A. Miller) wrote:
>>>> >> "mariamalene" == mariamalene <mariamal...@hotmail.com> writes:
>
>> I have two sample data sets with 20 years of 12 months
>> simulations in a lon/lat grid of 128 x 64. ,
>> i.e. 2x(20,12,128,64). I would like to find the difference
>> between the two simulations and find out which differences
>> that are significant at a 95% level. I have calculated the
>> annual average of my 20-year simulation, and also the
>> standard- deviation, but how do I perfom the t-test? I have
>> looked at the tm_test but haven't figured out how to apply
>> it on my 4-D approach..
>
> I'm not entirely clear on what you want to do, but I'll take a
> shot.
>
> If you have two data sets, A and B, and you want to test the
> hypothesis that the means are the same, you can use tm_test as in
> tm_test(A,B). It the data sets are paired, meaning A[i] is
> correlated with B[i], you can use tm_test(A,B,/paired) to test
> the hypothesis that the mean difference is zero. I suspect that
> this might be what you want. If you want to test the hypothesis
> that the mean difference is zero and that the difference does not
> have a spatial dependence, you could use a mixed effect model.
>
> If you are going to do stats, I'd suggest you use a statistics
> package, such as R (www.r-project.org) instead of IDL. For
> example, if a t-test is to be useful, your data must be normally
> distributed. That is very easy to test with R, and relatively
> easy to test with IDL, but once you get beyond very basic
> statistics, you'll get beyond IDL's build-in capabilities. There
> are relatively easy to use mixed effects modeling tools in R.
>
> Mike
>
> P.S. For the record: this posting should not be taken as an
> opinion against IDL, which I love/hate and use constantly. It's
> just that R, which I love/hate and use constantly, has a
> different set of strenghts and weaknesses. Give me grep, awk,
> python, IDL and R and an emacs to run it all in and I can shoot
> myself in the other foot every time!
>
> P.P.S. Getting even more off topic: this list needs to be
> updated:http://burks.bton.ac.uk/burks/language/shoot.htm

You are guessing right about my reasons for doing this. I'll check out R, although I hope I don't have to go further into statistics than this! Thank you.
