Subject: vector t-test?
Posted by wmconnolley on Mon, 03 Nov 2003 15:19:55 GMT
View Forum Message <> Reply to Message

Can I do a t-test on vectors (I mean, where each data point is a 2-d vector)? tm_test says it works on reals; does it work on complex data?

-W.

--
William M Connolley | wmc@bas.ac.uk | http://www.antarctica.ac.uk/met/wmc/
Climate Modeller, British Antarctic Survey | Disclaimer: I speak for myself
I'm a .signature virus! copy me into your .signature file & help me spread!

Subject: Re: vector t-test?
Posted by mmiller3 on Mon, 03 Nov 2003 19:16:29 GMT
View Forum Message <> Reply to Message

>>>> > "wmc" == wmc <wmc@bas.ac.uk> writes:

> Can I do a t-test on vectors (I mean, where each data point
> is a 2-d vector)? tm_test says it works on reals; does it
> work on complex data?

No - a t-test compares the means of two populations. If you have multidimensional data, you can compare means along multiple axes. Those may not be orthogonal though (even if the axis are spatially orthogonal), so the results may not be independent.

To get a better measure of the difference between the two populations, take a look at various spatial statistics methods to find the "right" statistic for your use. I don't know what is available in IDL though...

Regards, Mike

--
Michael A. Miller mmiller3@iupui.edu
Imaging Sciences, Department of Radiology, IU School of Medicine