Subject: How to find the confidence interval of a variable data at 95% or 66%?
Posted by atmospheric physics on Mon, 18 Aug 2014 20:07:30 GMT
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Dear All,

I have a few clarifications regarding finding the confidence interval (CI) of a variable data. As referred to the Fisher Z Transformation method, I find some clarity missing:
http://www.idlcoyote.com/code_tips/ccconf.php

1. "The number 1.96 comes from a table of critical values for normalized distributions for 95% CI". Can any one say what will be this value for 66% CI? When I referred to Shen and Lu paper, I find that this factor 1.96 is defined by z(1-alpha/2) = 100*(1-alpha/2). It was mentioned that alpha = 0.05 for 95% CI, but I could not understand how 1.96 is obtained. Can anyone clarify?

2. Can I find the CI on any variable parameter, say, variance of a data array, instead of correlation coefficient? If it is acceptable, then following the above link, I define as below:

fishersz = 0.5*(log(1+var_X) - log(1-var_X)) ; Fisher's Z-transformation
...
...
...

Please provide me some insight on how I can find the CI at any % level?

Thanking you in advance,
Madhavan