

Re: Marginals of a trivariate normal

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 - *Date:* Sat, 22 Sep 2007 14:04:02 +0100
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"paleostat" <paleologo@xxxxxxxx> wrote in message
<news:1190320449.506630.71950@xx>

I am trying to get clarity on the following problem, which was posed to me by a friend (who claims to be the original formulator!). It's very simple to state, but I am stuck. The answer is not known to me. Here it is:

"Consider three random variables, X, Y, Z. we assume that each pair of random variables follows a bivariate normal distribution. Is this sufficient to state that the joint distribution of the three random variables is normal?"

No. Hint for counter-example: Let $f(x,y,z) = \exp(-x*x-y*y-z*z)$ if $xyz > 0$, else $f(x,y,z) = 0$.

Graham Jones

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