

Re: conditional multivariate normal distribution

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jstar wrote:

Hi all

First of all, I am new here but I am not new to statistics. But I need your help on this one:

I do have a multivariate normal distribution: $x \sim p(\mu, \sigma)$

the vector x has to groups of variables, those that I know are below zero (x_{bz}), and those that I know are above zero (x_{az}).

I am interested in the conditional distribution of the x above zero: $p(x_{az} | x_{bz} < 0)$. Can someone help me derive this distribution or is this a known distribution I was to stupid to find?

It is not something for which there are simple formulae, although there may be something for the 2 variate case. General formulae can be derived by working with the multivariate CDF to get first a conditional multivariate CDF and then the corresponding density if necessary.

David Jones

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