

Re: Stationary processes...an easy way?

Source: <http://sci.tech-archive.net/Archive/sci.stat.math/2007-02/msg00117.html>

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 - *Date:* Fri, 09 Feb 2007 20:22:04 -0500
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backformystuff wrote:

Hello again everyone,

I have a homework dealing with stationary processes. I'm hoping someone can give me some hints to be at least able to detect what is and what isn't a stationary process upon inspection of an equation, given the parameters:

{Zsubt} = sequence of normal random variables with mean 0 and variance σ^2 ;
a,b,c = constants

$X_{subt} = Z_{sub1} \cos(ct) + Z_{sub2} \sin(ct)$.

My answer is that this *is* stationary because the cos & sin & (ct) cancel each other out? Is that an acceptable way of approaching this?

No. What do you know about linear combinations of jointly normal random variables?

And, is there an easy way of finding out the mean and autocovariance functions?

Use basic facts (linearity and bilinearity, respectively) of expectation and covariance.

—
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