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Subject: Re: Help needed!!

Posted by [bala murugan](#) on Fri, 16 Apr 2010 16:18:59 GMT

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On Apr 16, 10:10 am, pp <pp.pente...@gmail.com> wrote:

> On Apr 16, 12:49 pm, bala murugan <bala2...@gmail.com> wrote:

>

>> I am new to IDL. This is my first program in IDL. Can somebody point  
>> out the errors in my code. I have been struggling to get it right.

>

> If you do not say what you want to do, and what the problem is, we are  
> unlikely to guess it.

>

>> FUNCTION poissondist,fLambda,N

>>     r = RANDOMU(SEED,1)

>>     FOR j=1,N,1 DO BEGIN

>>         x=poisson(j,fLambda)

>>         if (x EQ r) THEN a[i]=j

>>     ENDFOR

>> RETURN,a

>> END

>

> a is never defined, which would cause an error when you try to do

> a[i]=j. However, you seem to avoid this occurring with a condition

> that looks like may never happen (x eq r).

My aim is to do the following,

To write an IDL routine that takes as input the mean of a Poisson distribution (fLambda = a floating point number >= 0.0) and a number of realizations (N), and generates N samples from the Poisson distribution with mean fLambda. The output samples should be provided as a vector (list) of integers (each >= 0). I will also want to plot a histogram of the samples (IDL probably has a built-in histogramming routine).

My subroutine/program will look something like this...

piSamples = PoissonDist(fLambda, N)

piSamples = vector of N integer samples returned by the routine

fLambda = mean of the Poisson distribution

N = number of samples to generate

This routine will need to loop n = 1..N Each time through the loop, it will need to call RANDOMU to get a random number between 0.0 and 1.0. It will then need to call IMSL\_POISSONCDF (probably repeatedly) to determine which integer in the Poisson distribution corresponds to the random number gotten from RANDOMU. This integer is then placed in

the output vector, etc.

I am not using IMSL\_POISSONCDF. Rather I am calculating the poisson probability myself.

Can you please help me with this?

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