Subject: Re: Help needed!!
Posted by bala murugan on Fri, 16 Apr 2010 16:39:15 GMT
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On Apr 16, 10:23 am, Craig Markwardt <craig.markwa...@gmail.com>
wrote:
> On Apr 16, 12:18 pm, bala murugan <bala2...@gmail.com> wrote:
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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?
>
> You might also want to check out an existing and well-tested Poisson
> deviate generator in the IDL Astronomy Library, called POIDEV.
>
> http://idlastro.gsfc.nasa.gov/ftp/pro/math/poidev.pro
>
> Craig

Does the poidev do the same thing as what I want to accomplish?
