
Subject: Re: Help needed!!

Posted by [bala murugan](#) on Fri, 16 Apr 2010 19:46:02 GMT

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On Apr 16, 1:13 pm, Gray <grayliketheco...@gmail.com> wrote:

> On Apr 16, 2:06 pm, bala murugan <bala2...@gmail.com> wrote:

>

>

>

>

>

>> On Apr 16, 11:48 am, "R.G. Stockwell" <noem...@please.com> wrote:

>

>>> "bala murugan" <bala2...@gmail.com> wrote in message

>

>>> news:29ee4ec6-4803-44fd-aa5c-00fc0d2c9376@u21g2000yqc.google groups.com...

>

>>>> Hi people,

>

>>>> 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.

>

>>>> CODE:

>

>>>> FUNCTION poissondist,fLambda,N

>>>> r = RANDOMU(SEED,1)

>>>> FOR j=1,N,1 DO BEGIN

>

>>> arrays are indexed from 0... N-1

>

>>>> x=poisson(j,fLambda)

>>>> if (x EQ r) THEN a[i]=j

>

>>> floating point numbers may never be exactly equal.

>>> Use a "if abs(x-r) lt 0.0001 then" type of statement

>

>>> as others have pointed out, 'a' and 'i' do not exist here.

>>> i have no idea what you think "i" should be.

>>> For a you will need to allocate an array inside that function, like so:

>>> FUNCTION poissondist,fLambda,N

>>> a = fltarr(N)

>>> r = RANDOMU(SEED,1)

>>> FOR j=0,N-1 DO BEGIN

>>> etc....

>

>>>> ENDFOR

>>>> RETURN,a

>>>> END

```

>
>>>> In the above code, the function "poisson" was written by me. It is as
>>>> follows,
>
>>>> CODE:
>
>>>> FUNCTION poisson,a,b
>>>> x = (b^a)/(exp(b)*factorial(a))
>>>> RETURN,x
>>>> END
>
>>> in the future, you may want to make sure a and b are passed in
>>> before executing that statement. for example:
>
>>> if n_elements(a) eq 0 then message,'missing a'
>>> if n_elements(b) eq 0 then message,'missing b'
>
>>> cheers,
>>> bob
>
>>> PS bonus info.
>
>>> Make sure that the code for
>>> FUNCTION poissondist,fLambda,N
>>> is in a file called poissondist.pro, and that it is in your IDL path.
>
>>> Also, make sure your function:
>>> FUNCTION poisson,a,b
>>> is in a file called poisson.pro, and that it is in your IDL path.
>
>> Guys, thanks a lot for the info.
>
>> Sorry, I made a mistake while copying the code and pasting it:
>
>> CODE:
>
>> FUNCTION poissondist,fLambda,N
>> FOR i=1,N,1 DO BEGIN
>>     a = FLTARR(N)
>>     r = RANDOMU(SEED,1)
>>     FOR j=1,N,1 DO BEGIN
>>         x=poisson(j,fLambda)
>>         if abs(x-r) lt 0.0001 THEN a[i]=j
>>     ENDFOR
>> ENDFOR
>> RETURN,a
>> END
>

```

>> I also came across another method. But am not sure if it does the same
>> thing as mentioned in the summary that I made.
>
>> The thing that I came across is as follows,
>
>> FUNCTION poissondist, fLambda, N
>> data = RANDOMU(SEED,N,POISSON=fLambda)
>> RETURN,data
>> END
>
>> Can you please clarify if the second method does the same thing as the
>> first?
>
>> Thanks,
>> B
>
> The second method does what you're looking for, the first may or may
> not but is overly complicated.

I also have a question in the second method in the following statement.

data = RANDOMU(SEED,N,POISSON=fLambda)

Ordinarily RANDOMU generates floating point pseudo random numbers in the range $0.0 < X < 1.0$

Can you explain in detail what happens in the above statement of the code.???
