
Subject: Re: RANDOMN function

Posted by on Thu, 14 Nov 2013 14:46:01 GMT

[View Forum Message](#) <> [Reply to Message](#)

Den torsdagen den 14:e november 2013 kl. 14:59:11 UTC+1 skrev fd_...@mail.com:

> Hi

>

> I used the RANDOMN function to add Gaussian noise to my data like this:

>

> noise=RANDOMN(seed,N)

>

> When I print, the mean values of RANDOMN(seed,N) I didn't get zero but something around 0.0337187.

>

> I expect to get something very very close to zero since the RANDOMN function returns normally-distributed, floating-points with a mean of zero. Is my assumption wrong? It's correct that the median is not zero?

You will get better statistics the larger the set:

IDL> for e=1,9 do print,e,10d^e,mean(randomn(seed,10d^e))

1	10.000000	0.0489258
2	100.00000	0.0172675
3	1000.0000	-0.0336368
4	10000.000	-0.00799687
5	100000.00	0.00208867
6	1000000.0	-0.00101986
7	10000000.	-0.000105310
8	1.0000000e+08	0.000104068
9	1.0000000e+09	2.46072e-05