Subject: Re: How to add standard gaussian noise to a image pixel
Posted by K. Bowman on Wed, 05 Jan 2005 20:54:31 GMT
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In article <1104952168.802765.153500@c13g2000cwb.googlegroups.com>,
"coold" <rodricks_is@yahoo.com> wrote:

> Could you please suggest how I can add standard gaussian noise with
> zero mean and standard deviation of different values like .5, 1,1.5 in
> IDL
>
> I have tried the following as mentioned in IDL help guide
> nx=60
> ny=60
> nz=100
> noisy[*,*,*] = original[*,*,*] + randomn(seed,nx,ny,nz)
>
> But the spectrum(output) I get for each pixel is not like expected.
> Thanks for any help.
> coold
>

It looks like uncorrelated Gaussian noise to me:

```
IDL> nx=60
IDL> ny=60
IDL> nz=100
IDL> r = randomn(seed,nx,ny,nz)
IDL>  help, r
R               FLOAT     = Array[60, 60, 100]
IDL> print, mean(r)
% Compiled module: MEAN.
% Compiled module: MOMENT.
  -0.00114778
IDL> print, stdev(r)
% Compiled module: STDEV.
     0.999860
IDL> plot, histogram(r,nbins=100)
IDL> plot, r, shift(r,1), psym=3, /isotropic
```

Ken Bowman

Subject: Re: How to add standard gaussian noise to a image pixel
Posted by coold on Thu, 06 Jan 2005 16:01:26 GMT
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Can you please suggest how I can add standard gaussian noise with

zero mean and standard deviation of different values like .5, 1,1.5 in IDL to a pixel using randomn()
The following code
nx=60
ny=60
nz=100
noisy[*,*,*] = original[*,*,*] + randomn(seed,nx,ny,nz) does seem to work.
Thanks.
coold
