
Subject: Re: idl bimodal distribution
Posted by [penteado](#) on Fri, 19 Nov 2010 18:24:45 GMT
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On Nov 19, 4:14 pm, Ana <u...@compgroups.net/> wrote:

- > I'm trying to simulate a bimodal "randomn" distribution with the 2 peaks having the sigmas of 0.3 each for example and mean around -1.2 and -0.7...
- > Do you have any tips?
- >
- > I've tried adding these below, but it doesn't work..., I get a unimodal distribution...
- > met_1a = randomn(seed,100000)*0.3-1.2
- > met_1b = randomn(seed,100000)*0.3-0.7
- >
- > Can someone help?

Maybe I misunderstood it, but is this not a result of the central limit theorem?

Subject: Re: idl bimodal distribution
Posted by [penteado](#) on Fri, 19 Nov 2010 18:32:16 GMT
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On Nov 19, 4:24 pm, Paulo Penteado <pp.pente...@gmail.com> wrote:

- > On Nov 19, 4:14 pm, Ana <u...@compgroups.net/> wrote:
- >
- >> I'm trying to simulate a bimodal "randomn" distribution with the 2 peaks having the sigmas of 0.3 each for example and mean around -1.2 and -0.7...
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- > Maybe I misunderstood it, but is this not a result of the central
- > limit theorem?

If you want two peaks, it seems that you want the concatenation, not the addition of the two distributions. Still, the distance between the peaks will have to be large compared to the sum of their standard deviations.

Subject: Re: idl bimodal distribution
Posted by [Robin Wilson](#) on Fri, 19 Nov 2010 23:42:12 GMT

On 19/11/2010 18:32, Paulo Penteado wrote:

```
>>> I've tried adding these below, but it doesn't work..., I get a unimodal distribution...
```

```
>>> met_1a = randomn(seed,100000)*0.3-1.2
```

```
>>> met_1b = randomn(seed,100000)*0.3-0.7
```

Just to complete the answer with an example. You could concatenate those arrays by doing:

```
bimodal_dist = [met_1a, met_1b]
```

As Paula stated, you may need a larger distance between your peaks to get a noticeably bimodal distribution.

Best regards,

Robin
