Subject: Probability contour plots
Posted by Klemens on Fri, 13 Apr 2007 05:58:45 GMT
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Hello together,

is there anybody who has written an IDL routine to produce probability contour plots from twodimensional datasets, where an isoline of 10 % means that 10 % of all value pairs are enclosed by this line ? Also it should be possible to find two or more separated lines with the same value when clustering of the data makes it necessary....
It would be great if anybody has a routine like this or could give me some advice how to produce plots like these..

Thanks for your help in advance !

Klemens

Subject: Re: Probability contour plots
Posted by ben.bighair on Fri, 20 Apr 2007 21:18:23 GMT
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On Apr 13, 1:58 am, "Klemens" <jokulhl...@web.de> wrote:
> Hello together,
>
> is there anybody who has written an IDL routine to produce probability
> contour plots from twodimensional datasets, where an isoline of 10 %
> means that 10 % of all value pairs are enclosed by this line ? Also it
> should be possible to find two or more separated lines with the same
> value when clustering of the data makes it necessary....
> It would be great if anybody has a routine like this or could give me
> some advice how to produce plots like these..
>
> Thanks for your help in advance !
>
> Klemens

Hi,

Will this work for you?

```
;make two "images"
n = 100
x = RANDOMU(s,n,n)*100
y = RANDOMU(s,n,n)*100
;reformat them into a 2xn array suitable for HIST_ND
xy = TRANSPOSE([[REFORM(X,n*n)],[REFORM(Y,n*n)]])
```

```
;bin them using JD Smith's HIST_ND
h = HIST_ND(xy,[10,10])
;convert to a probability
p= h/TOTAL(h)
; this might not have any bins with 10% or more of the pixels - but
some must have
;at least 1%
CONTOUR, p, LEVEL = [0.01]
```

Ben
