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Subject: Re: Contour Issues... Help please

Posted by [Jeremy Bailin](#) on Fri, 17 Oct 2008 19:16:07 GMT

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On Oct 16, 10:04 am, leon.w...@gmail.com wrote:

> On 15 sep, 20:26, kishore1...@gmail.com wrote:

>

>

>

>> On Sep 11, 3:01 pm, plim.dream...@gmail.com wrote:

>

>>> Greetings all!

>>> It has been a while since I last posted here, for me that's a good

>>> sign.

>

>>> Contour plots have always been full of issues. Contour plots and

>>> "histogram"... It's like the user wants to do one thing and the

>>> program wants to do another...

>

>>> I have a set of irregularly distributed sources. 2 dimensional space.

>>> x, y.

>>> I would like to plot a contour of their density distribution. So I

>>> figured, i'll use hist\_2d to grid the space into bins of 0.1 by 0.1

>>> and then contour plot the result.

>

>>> result =

>>> hist\_2d(hmk,jmh,bin1=0.1,bin2=0.1,max1=max(hmk),max2=max(jmh ),

>>> min1=min(hmk), min2=min(jmh))

>

>>> levels = 30

>>> step=(max(result)-min(result))/levels

>>> userlevels=indgen(levels)\*step + min(result)

>>> contour,result,levels=userlevels,background=1,color=black,xs tyle=1,ystyle=1

>

>>> Right?! Anybody see any major error thus far?

>>> The thing is that the contour plot comes out with its axis ranging

>>> from 0 to 50 whereas the input data only ranges from -1 to 4. And I

>>> can't figure out why.

>

>>> Any help is greatly appreciated,

>>> Plim

>

>> Hi

>> In your contour program you missed some params.

>> For example

>> contour,Z(dim1,dim2),x(dim1),y(dim2),levels=lvls,position=po

s1,xrange=[limit1,limit2],thick=3,xsty=1,ysty=1,charsize=0.9 ,/

>> follow

```
>  
>> just follow above method.  
>  
>> Kishore  
>  
> Hi !  
>  
> What do you mean with dim1 and dim2?  
>  
> I have two vectors both with 9125 elements. After hist_2d, I get  
> an array of [24,15].  
>  
> When I'm trying to plot the contours of the array mentioned above  
> the axis are ranging in different scales. Could you help me?  
>  
> thanks and have a nice day!
```

You need the x and y coordinates of "result". If you create result using:

```
result = hist_2d(data, min1=min1,max1=max1,bin1=bin1,  
min2=min2,max2=max2,bin2=bin2)
```

then(\*) you end up with result being nx by ny, where

```
nx = (max1-min1)/bin1
```

```
ny = (max2-min2)/bin2
```

with coordinate values

```
xcoords = min1 + bin1*lindgen(nx)
```

```
ycoords = min2 + bin2*lindgen(ny)
```

In this case, xcoords and ycoords are what you want to feed into contour.

(\*)However, watch out for floating point arithmetic issues that may give you one bin more than you think you should have. nx and ny are really ceil() of the expressions I gave.

-Jeremy.

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