Subject: Density contour curves
Posted by Eric Williams on Thu, 10 Jun 1999 07:00:00 GMT
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I am wondering if there is a better way of doing solving this problem:

I have a set of data (x,y coordinates) that represent a distribution
(actually the 2-D spatial distribution of a star field). I would like to
show the position of the stars and then overplot contours curves that
convey the spatial density of the stars. Here is my simplistic first approach:

```
************
array = fltarr(n,m)*0    ;n & m are dimensions I pick
                         ;depending on the range of x,y values

for n=0,n_elements(x)-1 do array[x[n],y[n]]=1

sarray = smooth(array,5)  ;3,5,7,9 for smooth depending
                         ;on resolution I want, I guess

plot,x,y,psym=3

contour,sarray,/overplot  ;with levels if desired.

************
```

So, is using smooth bogus? I did it to try and make the contours
smoother, but I don't understand if it would be better to not use them.
Is there a better/more proper way to do something like this?

Thanks for any suggestions!

Eric Williams
eric@astro.wesleyan.edu