Subject: Re: isodensity contours
Posted by Gray on Thu, 24 Feb 2011 00:34:54 GMT
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On Feb 23, 3:24 pm, Paolo <pgri...@gmail.com> wrote:
> On Feb 23, 3:06 pm, Gray <grayliketheco...@gmail.com> wrote:
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>> On Feb 23, 2:12 pm, Paolo <pgri...@gmail.com> wrote:
>
>>> On Feb 23, 1:24 pm, Gray <grayliketheco...@gmail.com> wrote:
>
>>>> Hi all,
>
>>>> I have a scatterplot with a bunch of points on it. I'd like to plot
>>>> isodensity contours to include 99%, 90%, 75%, and 50% of my points.
>>>> How do I set up my data to give to cgContour? Thanks!
>
>>>> --Gray
>
>>> If I understand this correctly, you have two arrays
>>> x and y of coordinates of N points.
>
>>> To contour them, you need first to create a
>>> density array from your dataset - basically
>>> you divide the xrange and yrange of your data
>>> in a number of bins and the density array will
>>> tell you how many points lie in each bin.
>
>>> Then you can use the normal contour procedures.
>
>>> So how you do partition the data into the density
>>> array? hist_2d will do that for you.
>
>>> Ciao,
>>> Paolo
>
>> I thought I posted this already... if it shows up twice, I'm sorry.
>
>> Upon further reflection, I think that "isodensity contours" are not
>> exactly what I want, though I may need to use them anyway (as

>> described by Paolo) if I can't figure out a way to do EXACTLY what I
>> want.
>
>> Here's some more detail on my issue. I have a plot for which the x-
>> axis is stellar magnitude in one image, and the y-axis is stellar
>> magnitude in a different image. I have two populations of stars (pop
>> A and pop B). Pop A is pretty clustered, but the cluster is sort of
>> smeared out so I can't use a simple centroid. I'd like to see where
>> the pop B stars lay on the plot in relation to the pop A stars by
>> plotting contours showing what percentage of pop A stars are within
>> them (99%,90%,75%,50%). Is this doable without getting really
>> complicated, or should I use the isodensity contours instead?
>
>> An example image is athttp://tinypic.com/r/2mepz4/7
>> The black points are pop A and the colored symbols are pop B.
>
>> Thanks for your help!
>
>> --Gray
>
> I would at least try to get the density for the pop A
> stars - will take only a few minutes to do. You may want
> to smooth the contours a bit. But it looks like it should
> come out reasonably well...
>
> Ciao,
> Paolo

How does one smooth contours? :/
