Olivia writes:

> I have a set of (x,y) coordinates which represent point-like galaxies
> in a galaxy cluster. Ultimately I want to describe the shape of the
> cluster as an ellipse, but I was planning on making some kind of blob
> first. I thought of gaussian smoothing, but I cannot work out how to
> get a filled in shape described by pixels to start working with. Does
> anyone have any ideas?

Here are a couple of articles describing techniques that you
might be able to use. The first describes how to create
a convex hull around a set of points. You could fill
in the polygon (convex hull) to create a blob of some
sort. The second describes how to calculate an ellipse
for a set of random points using a weighed average
approach.

   http://www.dfanning.com/tips/convex_hull.html
   http://www.dfanning.com/ip_tips/fit_ellipse.html

Cheers,

David

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