Subject: Re: Fitting an ROI to a distribution of points
Posted by Edd Edmondson on Wed, 01 Feb 2006 17:21:20 GMT
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Olivia <olivia.roberts@merton.ox.ac.uk> wrote:
> 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?

Plenty of ways, the majority of which I wouldn't dare include in an astrophysical analysis. Better to bite the bullet now and have a slightly complex way of handling it than be trying to figure out exactly what effects your choice has on your analysis later.

For now, if you just want to get a filled in shape it might be best to find the minimum enclosing circle or ellipse. Your cluster shouldn't have so many members that it would be impractical to calculate the angular distance between all members and find the most distant pair. Having that code in place later will probably not be entirely wasted when you change method slightly too.

If you're working in astrophysics at Oxford say hello from me - I left last month :-)

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Edd