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Subject: Re: Curve Fitting Question

Posted by [Craig Markwardt](#) on Mon, 12 Nov 2012 23:51:48 GMT

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On Monday, November 12, 2012 5:56:03 PM UTC-5, Coyote wrote:

> Folks,

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> I have a data set with two more or less Gaussian peaks in its histogram. I am not overly concerned with the shape of the peaks, or even what their maximum values are. Rather, I am interested in how I might separate these two populations by picking an appropriate threshold between them. Visually, the separation is quite clear, but it appears in a somewhat different location with each data set, thus the need for a programmatic solution.

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> Although I don't yet know how to do this, it occurs to me that I might be able to use Craig's MPFit program to fit some kind of double Gaussian to the data and look for the low point between the peaks. If anyone knows how to do this, I would be most grateful for pointers. Or, failing that, I would be interested in other IDL solutions to this problem. Thanks!

How noisy are the peak and non-peak regions of your histogram in the potential worst case? If the noise in non-peak regions can never be as high as the peaks, I probably wouldn't fit it. I would probably walk in from the left and right sides one bin at a time until you find a local max in each case.

Craig

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