
Subject: mpfit2dpeak and chi-square

Posted by [JJMeyers2](#) on Tue, 25 Oct 2005 14:44:42 GMT

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Hello,

I am trying to use mpfit2dpeak and I am trying to understand the result that comes out of chi-square, so I was wondering if someone can help me out. I am describing the problem.

I have an image with random star positions x,y (the image has 2048x2048 pixels). I am trying to fit the positions to a 2-d gaussian. I have a vague idea where the central density of the stars should be and I create a square of 400x400pixels around it and I calculate the density of different circles in this square in order to fit it to a gaussian.

After running mpfit2dpeak the results I get for the gaussian parameters and the errors are reasonable. When I use the keyword CHISQ though I get a very big number (245781 which divided by 160000 is 1.5) which is very big and is not reasonable since the errors are very small and the fit looks very good. I was wondering if I am using the chisq in a wrong way and the result that I get is not what I think it is.

Any suggestions?

Thank you,
Jim Meyers
