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Subject: MPFIT2DPEAK

Posted by [angela](#) on Wed, 22 Jun 2005 15:27:24 GMT

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Hello,

I was wondering if someone can help me out with a problem I have in MPFIT2DPEAK.

Fist I am describing the problem: I have an image with stars and I am trying to fit the distribution to a gaussian and determine the coordinates of which there is a peak density of stars.

I have an array of 400x400 pixels (centered where I believe the center shoud be) and I have calculated the number density of the stars in a specific radius for all the coordinate combinations starting from the (0,0) coordinates.

I am using the MPFIT2DPEAK to fit a gaussian and to get a better handle on the center I am trying to find.

I have two questions:

1. When I am using MPFIT2DPEAK without a 'guess' about the center (I use it with the tilt keyword), I get:

```
3.02628  3.92726  40.2412  13.1586  37.6854
24.7872  2.99398
```

I have read from the tutorial that if you do not give an initial guess the program will try to guess what is the center. How do I know what the program thinks as a center? In other words, this result tells me that the center is at

(x,y)=(37.6854,24.7872) or it understands that the center that I used is (200,200), so the result is that the center is at (200+37.6854,200+24.7872)?

2.I tried to run the MPFIT2DPEAK using the estimates keyword :

```
result=mpfit2dpeak(start,B,start(200,*),start(*,200),/TILT)
```

where (200,200) is approximately where I think the center is and 'start' is my 400x400 array that has all the densities stored (they are all integers). I get this message:

```
% Attempt to subscript XX with WHMAX is out of range.
```

```
% Execution halted at: MPFIT2DPEAK      390
```

```
  /raid1/home/angeliki/IDL/mpfit2dpeak.pro
```

```
%          $MAIN$
```

Any ideas on what the problem might be?

Thank you for all your help,  
Angela

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