
Subject: Re: How can i get the co-ordinates of the peaks in a plot?
Posted by [Tigran Khanzadyan](#) on Mon, 25 Sep 2006 09:10:28 GMT
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zircola wrote:

> I used max function to get the y value but don't know how to get the
> corresponding x value and how to get the xy value of the more than one
> peaks. please help. thanks:)

Hi,

I can quickly answer to your first question:

```
sizeim=size(image)
szx=sizeim(1)*1.
szy=sizeim(2)*1.
inx=where(image eq max(image))
xv=round((inx/szx-fix(inx/szx))*szx)
xv=xv(0)
yv=fix(inx/szx)
yv=yv(0)

xx=findgen(szx)-xv
yy=findgen(szy)-yv
xx=xx*(image pixel scale)*(-1.) ; for correct RA direction
yy=yy*(image pixel scale)
```

You can use this coordinates to make a plot with 0 on maximum value.
For more peaks, maybe you can overplot contours and show that way
some of your peaks.

I hope this can solve some of your problems.

Cheers

Subject: Re: How can i get the co-ordinates of the peaks in a plot?
Posted by [Braedley](#) on Mon, 25 Sep 2006 12:05:26 GMT
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zircola wrote:

> I used max function to get the y value but don't know how to get the
> corresponding x value and how to get the xy value of the more than one
> peaks. please help. thanks:)

An optional argument for max is max_subscript. Set this to a named
variable to get the index of the array that contains the maximum value.
Then it's as simple as subscripting your x array with that named

variable.

```
y_val=max(y, max_index, /abs)
x_val=x[max_index]
print, 'The maximum occurred at ', x_val, ' and had a value of ', y_val
```

Subject: Re: How can i get the co-ordinates of the peaks in a plot?

Posted by [Paul Van Delst\[1\]](#) on Mon, 25 Sep 2006 20:29:48 GMT

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zircola wrote:

> I used max function to get the y value but don't know how to get the
> corresponding x value and how to get the xy value of the more than one
> peaks. please help. thanks:)

Take the derivative (use DERIV) of your curve to locate all the peaks (where the derivative crosses the zero line. Then, as Mike Braedley's post detailed, use the MAX function with the optional subscript to get the x value at each zero crossing. You *may* have to interpolate if the x-axis resolution of your data is too low, but I'd be leery of doing that.

There's probably an easier way if you use HISTOGRAM. :o)

cheers,

paulv

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Paul van Delst Ride lots.
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Subject: Re: How can i get the co-ordinates of the peaks in a plot?

Posted by [zircola](#) on Fri, 29 Sep 2006 00:45:20 GMT

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thank you IDL gurus, i am learning a lot. works great.
