
Subject: Re: Help Finding Sources (Peaks) in an Image

Posted by [TonyL](#) on Sun, 22 Mar 2009 06:59:49 GMT

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On Mar 21, 5:28 am, einszweil...@gmail.com wrote:

> I have a 2D image that I've read into IDL. I'm trying to write a
> procedure to locate all of the "peaks" (i.e. highest intensities) of
> the image.
>
> I suppose I'm defining a "peak" as any pixel that has a higher
> intensity than any of its surrounding r pixels, where r is some sort
> of "radius" around the pixel (not necessarily a circular region).
> Maybe $r = 4$ or something
>
> After scanning through the image I'd like the procedure to either
> print out the pixel locations and/or create circles around them on the
> image itself.
>
> Does anyone have any ideas? I mean, I'm not asking you to write up a
> whole procedure for me unless you want to be really helpful. But any
> hints or tips on what functions, etc. I could use would be extremely
> helpful. Or just a quick few lines of code I could build off of would
> be great.
>
> Thanks in advance!

I may have a similar problem with automatically finding centres of high and low pressure systems in a 2D grid of mean sea level pressure. I use the contour command with the path keywords set to store the contour information. Then I extract all closed contours that have been tagged as local highs. Then sorting from high to low within that set of closed high contours, I extract the lat-lon of the highest contour. Then work downwards, ignoring closed contours that have the same position. I suspect you might be able to do the same thing provided there is some degree of uniformity to your 2D array. If contour plotting gives spotty results, then my method is probably no good.

Tony
