Subject: Broad Peak Search Algorithm
Posted by markjamie on Mon, 11 Mar 2013 22:32:16 GMT
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Hi All

I have a dataset which is noisy, but contains a small number (< 5) broad peaks, much like the data given in http://carlwillis.files.wordpress.com/2011/03/wellrich_spect rum.jpg (just an pictorial example, not the actual data). You'll notice that there is both small amplitude noise throughout the data together with a small number of broad peaks.

The majority of peak finding routines I've found work on the basis of derivatives/gradients which find hundreds of "local" peaks in the small amplitude noise. I'm interested in tracking the broader, large peaks only. Ideally I'm after a peak finding routine which filters on the basis of peak width and allows some filtering based around amplitude so certain peaks can be selected over others.

Just to add to make things even more complicated (:-)) the data is often quite sparse meaning that while the broad peaks are always present, they may be not be as well formed as in the example image above.

Can anyone suggest a robust method or existing IDL routine that would help pick out the broad peaks only?

Any help or advice would be massively appreciated!

Mark