Subject: Re: Broad Peak Search Algorithm
Posted by Yngvar Larsen on Tue, 12 Mar 2013 09:44:07 GMT
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On Monday, 11 March 2013 23:32:16 UTC+1, mark...@gmail.com wrote:
> 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.

[...]

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

For this kind of application, you might want to have look at the concept "significance in scale space", pioneered by Steve Marron. Examples from 1D and 2D here:

http://www.unc.edu/~marron/Movies/SSS_movies.html

Papers here (quite technical):
http://www.unc.edu/~marron/marron_papers.html

No IDL code that I know of, but there should be some Matlab code to be found (SiZer by Marron and Chaudhuri), and if I remember correcty also a Java port.

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Yngvar