Subject: Peak finding
Posted by Simon de Vet on Mon, 04 Jun 2001 14:29:00 GMT
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I have a set of 3-D data, where a single peak should occur for each Z value. I wish to know where this peak is.

Currently, I've been using a gaussian fit with 5 parameters, and using the centre of the gaussian as the peak location. This fails when the peak is very near the edge of the dataset, but the results in the centre are good. I can easily differentiate between good values and noise from IDL.

However, I tried running a different dataset and the gaussian fit just hung completely. On experimentation, I discovered that the good data hung if I tried a gaussian fit with 4 parameters (which I'd prefer) or with 6 parameters.

I'm looking for a simple, but stable, way of detecting where these peaks occur. I'd like to avoid functions that are dependant on only a few points (like simply using MAX). It doesn't have to work in all situations, but should be happy when both edges of the peak are present.

Any ideas?

Simon