Subject: error estimates (a little off-topic maybe)
Posted by src on Thu, 03 Oct 2002 19:38:25 GMT
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This question might be a little off-topic, but since a lot of scientists/engineers use IDL, someone may have some ideas.

What I'd like to do is measure the amplitude (and estimate the error) of a peak in a Fourier transform. Now I could fit the peak with a Gaussian function, and if I use CurveFit, it will give me an error estimate too. The problem is, the error estimate is dependent on on the number of points fitted, as one might expect with such routines. Since I wish to perform a hypothesis test later, I could get the outcome I want just be increasing the number of frequency points in the Fourier transform, so that the error is small and my hypothesis is accepted.

Does anyone know of a way of estimating such an error which is not dependent on the number of points fitted?

cheers,
S