
Subject: Re: HELP: Levenberg-Marquardt method
Posted by [kletzing](#) on Mon, 06 Mar 1995 15:05:19 GMT
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I have done fitting with various types of plasma data, quite often measured distribution functions that I wish to fit with idealized functions. This does not usually work very well with the CURVEFIT routine because the fit phase space, so to speak, has many local minima. Thus if curvefit starts near a local minima it often just finds that minima without finding other better minima. On the other hand I have worked with time series data that have an extraneous noise signal at one frequency that I have removed very successfully with curvefit.

For the first type of problem, I have had more success by backing up to less sophisticated methods such as gradient search or grid search techniques. They take longer (often much longer) to converge, but tend to do better when the data is not as nice. Both these techniques are described in Bevington's book.

Could you elaborate on the error in CURVEFIT? I've never looked over RSI's implementation very carefully.

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