
Subject: Re: Non-linear optimization

Posted by [Ken Kump](#) on Tue, 12 Nov 1996 08:00:00 GMT

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Howard Onishi wrote:

> Does anyone know of a source for non-linear optimization codes (in IDL
> of course)? I am particularly interested in image restoration
> techniques such as maximum entropy deconvolution. The problem size is
> on the order of several hundred variables.

Howard,

Someone from the Naval Research Lab wrote a program called superfit.pro, some years ago. It did a generalized non-linear least-squares fit to a user-supplied function. This worked for me, but was quite slow. I have found that for computationally intensive optimization, it is *much* faster to use a call_external, especially if you are talking about several hundred variables. I have used NL2SOL, a FORTRAN-based procedure which is quite flexible and quite well documented. It can be found at <http://netlib.bell-labs.com>. I have also used the Powell-method (Numerical Recipes) in a similar fashion. Good luck.

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