Subject: IDL question about IMSL_NLINLSQ
Posted by wy on Wed, 22 Jul 2009 09:21:51 GMT
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I'm using IMSL_NLINLSQ to solve nonlinear equations right now. I've got results utilizing argument like "MAX_STEP=0.01,TOL_AFCN=0.01", but I have an prompt as below:

"IMSL Error: IMSL_NLINLSQ: Warning: MATH_UNBOUNDED: Five consecutive steps of length "MAX_STEP" have been taken; either the function is unbounded below, or has a finite asymptote in some direction or the maximum allowable step size "MAX_STEP" is too small."

I changed the arguments to be more sensitive seemingly like "MAX_STEP=0.0001,TOL_AFCN=0.00001", but the computer ran much quicker. It's rather terrible. (The prompt also existed.)

In fact, I can get entirely different results from MATLAB 'fsolve' function using the same Levenberg-Marquardt algorithm. The results from MATLAB don't change with initial values and the residuals are negligible, while residuals from IDL lie in between 0.1 and 0.2.

I'm really confused. Could someone help me explain this?