Subject: Re: IDL question about IMSL_NLINLSQ
Posted by wy on Wed, 22 Jul 2009 10:57:10 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?