
Subject: Re: TNMIN limits

Posted by [Brian Larsen](#) on Mon, 03 Dec 2007 13:08:06 GMT

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While admittedly I have not used TNMIN before, it is often good practice to use several different methods of function minimization on the given problem. There are issues associated with each solver, what it requires and what it can handle. For instance there is a class of solvers that require derivatives and a class that don't. If your function has regions that are not differential then that method will have issues... there is a list in idl of built-in minimization routines (there are 5-6). Everyone has their own favorite but I often use ameoba() first, it doesn't need derivatives and seems to work well and fast. The function that you are minimizing has to be written to enforce limits on variables but that's not too bad to do,

a few web resources:

ameoba (a c code base but lots of good information)

<http://solar.physics.montana.edu/kankel/ph567/examples/minimization/>

conjugate-gradient:

http://solar.physics.montana.edu/kankel/ph567/resources/conjugate_gradient/

Cheers,

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