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Subject: Constrained Optimization routine

Posted by [Gianluca Li Causi](#) on Fri, 26 Aug 2005 14:01:38 GMT

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Hi all,

I'm wondering if anybody knows an IDL routine to perform minimization of a nonlinear function given functional constraints on the variables.

I mean: I would minimize a nonlinear  $F(x_0, \dots, x_n)$  subject to the constraint  $G(x_0, \dots, x_n) = 0$ , where  $G$  is another nonlinear function of the same variables.

I know the very good TNMIN routine from Craig B. Markwardt, it can deal very well with simple boundary constraints on each variable (e.g.  $x_i > \text{low\_boundary}$  or  $x_i < \text{high\_boundary}$ ), but it is not possible to define a limit constraint which is a function of more variables.

Can anybody help me?

Thank you so much.

Gianluca

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