Subject: Re: Singular jacobian in broyden
Posted by Jerome Colin on Thu, 24 Feb 2005 10:34:49 GMT
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Ralf Schaa wrote:
> Jerome Colin wrote:
>
>> Hello,
>>
>> I try to use the Broyden function to resolve a set of three equations.
>> I've declared the three equations in a function, and provided initial
>> guess. The code is compiled well, but I get the message :
>> 'Singular jacobian in broydn'
>>
>> As I'm not familiar with this method, I'd appreciate any help and/or
>> comments about the source of this error.
>
>
> Jerome,
>
> Please have a look at the numerical recipes, Chapter 9.7 "Root Finding
> and Nonlinear Sets of Equations". On page 382 you will find the
> paragraph "Multidimensional Secant Methods: Broydenï¿½s Method" and on
> page 386 there is a comment on singular jaciobians.
> Download the pdf-files from numerical recipes e.g. at:
> http://www.library.cornell.edu/nr/cbookfpdf.html
>
> I had difficulties using Broyden method's as implemented in IDL
> following the numerical recipes, since it is very strong depending on
> the start vector.
> I used methods in Mathematica though and had 'the feeling' it worked
> better, but I could not proove it.
>
> -Ralf

Thank you Ralf !

Jerome