Subject: LSODE implemantation
Posted by Theo Brauers on Tue, 05 Aug 2003 12:18:39 GMT
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Hi.

A long time ago there was a discussion about the quality of the
implementation of LSODE in IDL. I intend to use LSODE
in the near future and I'm interested in any report about the
bugs and the goodies in that routine. Alternatvely I could
use LSODE (fortran) or CVODE (C) as an external routine.
Are there ready to use dll s or dlm s and the respective
ILD pro files?

Thanks Theo

Theo Brauers

Tel: +49-2461-616646
Fax: +49-2461-615346

Subject: Re: LSODE implemantation
Posted by Craig Markwardt on Sun, 10 Aug 2003 16:54:11 GMT
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"Theo Brauers" <th.brauers@NOSPAM.fz-juelich.de.NOSPAM> writes:

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Sorry for responding so late to this question. It "scrolled" too far.

I have an ODE solver on my web page named DDEABM. It is a variable
order Adams Bashford Moulton solver (predictor corrector) with error
control. I've used it quite a bit for several problems; and I

recently had a report of someone using it to successfully solve 65,000
simultaneous equations! DDEABM (and Runge Kutta for that matter) is
really only appropriate for non-"stiff" sets of equations.

Good luck,
Craig

http://cow.physics.wisc.edu/~craigm/idl/idl.html (under math)

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 -- --------------
Craig B. Markwardt, Ph.D.   EMAIL: craigmnet@cow.physics.wisc.edu
Astrophysics, IDL, Finance, Derivatives | Remove "net" for better response
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Subject: Re: LSODE implemantation
Posted by Theo Brauers on Wed, 20 Aug 2003 11:15:47 GMT
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Craig Markwardt wrote:
> "Theo Brauers" <th.brauers@NOSPAM.fz-juelich.de.NOSPAM> writes:
>
>
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> Good luck,
> Craig
>

> http://cow.physics.wisc.edu/~craigm/idl/idl.html (under math)
>

Thanks for your answer. However, I am searching for a solver for
a stiff set of ODEs in the order of 10000 simultaneous equations.
So far I am using facsimile (a commercial product from AEA) as an
external solver but I would like to integrate the solver into my IDL
routines espcially when IDL 6 allows to give away programs to people
who do not intend to pay the RSI and AEA licence fees.

Best Theo