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:
>
>
>
>> 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?
>
>
> 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)
>

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