Subject: Re: Coupled non linear first order equation
Posted by Craig Markwardt on Wed, 16 Mar 2016 17:24:29 GMT
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On Tuesday, March 15, 2016 at 6:07:03 PM UTC-4, say_cheese74 wrote:
> I have a system of (momentum) equations in cylindrical coordinates:
> (r,theta,phi)
>
> rho*(dv/dt+(v.del)v=A(r,theta,phi)
> where the velocity v(r,theta,phi) and A are vectors and dv/dt is the partial derivative wrt time. del is the gradient.
>
> I am trying to find the steady state solution to the equation
> (v.del)v=A.

Obvious question: did you try Runge Kutta (IDL's RK4?).

Craig