
Subject: Re: Plotting streamlines in 3D

Posted by [David Fanning](#) on Tue, 25 Jan 2005 15:12:58 GMT

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mark.t.douglas@gmail.com writes:

> I can plot streamlines (well, magnetic field lines, but anyway) in 2D
> easily enough but getting them to plot in 3D is a task that is filling
> me with a terrible rage - I just can't get it working! plots() doesn't
> seem suited to the task and I really can't figure out how streamline()
> or particle_trace() or anything like that works. I tried googling for
> help but all I got were 404s because it seems the last time anyone
> tried plotting streamlines in 3d and getting stuck doing so was in
> 2001.
>
> Anyone able to help? The field is analytic so I can get the field at
> any point easily enough (field(x,y,z) returns a three-element vector)
> and I can trace the field lines starting from any point too
> (trace(x,y,z,ds) returns a 3xN array consisting of the x,y and z coords
> of the nth point along it, with a stepsize ds) but plotting them in 3D
> is driving me mad!

I find the documentation for PARTICLE_TRACE and STREAMLINE
a bit dense, too. But I presume you know these two routines
work together (PARTICLE_TRACE preparing input for STREAMLINE),
and that the result needs to be rendered (probably, or I can
understand your frustration) in an object graphics program.

Is this the latter what you are frustrated with?

A few more details of what you have actually tried would
help. :-)

Cheers,

David

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Coyote's Guide to IDL Programming: <http://www.dfanning.com/>
