Subject: field plot
Posted by kostis on Sun, 04 Mar 2007 22:41:12 GMT
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How do I plot a 3d vector field , and preferably in cylindrical
coordinates??
Is there a command similar to PLOT_FIELD for 2d?
Does anyone have a clue??

Subject: Re: field plot
Posted by Michael Galloy on Mon, 05 Mar 2007 18:30:12 GMT
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On Mar 4, 3:41 pm, "kostis" <kostis...@gmail.com> wrote:
> How do I plot a 3d vector field , and preferably in cylindrical
> coordinates??

"Very carefully" comes to mind.

> Is there a command similar to PLOT_FIELD for 2d?
> Does anyone have a clue??

I have used PARTICLETRACE and STREAMLINES a bit, though I haven't been
entirely happy with the result.

Mike
--
www.michaelgalloy.com

Subject: Re: field plot
Posted by David Fanning on Mon, 05 Mar 2007 18:41:27 GMT
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mgalloy@gmail.com writes:

> On Mar 4, 3:41 pm, "kostis" <kostis...@gmail.com> wrote:
>> How do I plot a 3d vector field , and preferably in cylindrical
>> coordinates??
>
> "Very carefully" comes to mind.
>
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>
> I have used PARTICLETRACE and STREAMLINES a bit, though I haven't been

> entirely happy with the result.

I would agree with Mike. I don't think the definitive
3D vector application has been written yet. Just a
quick Google search on the topic quickly convinces me
it is not a trivial problem, and the fact the all vector
fields in iVector are 2D is even spookier.

On the other hand, this may be your opportunity to make
a mark in the IDL programming world! :-)

Cheers,

David

--
David Fanning, Ph.D.
Fanning Software Consulting, Inc.
Coyote's Guide to IDL Programming: http://www.dfanning.com/
Sepore ma de ni thui. ("Perhaps thou speakest truth.")

Subject: Re: field plot
Posted by Kenneth Bowman on Mon, 05 Mar 2007 20:06:03 GMT
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In article <1173048071.392401.319730@v33g2000cwv.googlegroups.com>,
 "kostis" <kostiskaz@gmail.com> wrote:

> How do I plot a 3d vector field , and preferably in cylindrical
> coordinates??
> Is there a command similar to PLOT_FIELD for 2d?
> Does anyone have a clue??

Unfortunately, IDL does not have the relatively comprehensive support
for coordinate systems and plot methods that one finds, for example,
in Mathematica. I attribute this (perhaps erroneously) to the fact that
the dominant legacy in IDL is image processing, rather than applied
math and mathematical physics.

Given the (lack of) interest from ITTVIS in direct graphics, this is
unlikely to change, in that domain at least.

Streamlines pose some real challenges, but vector plotting support
should be much better than it is (in my opinion), especially when
it comes to plotting vectors on maps.

Ken Bowman