Subject: how to draw streamline Posted by wenfang_zhao on Fri, 07 Mar 2008 03:08:36 GMT

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Hi,all

I want to draw the wind streamline map, and I try many methods described in the forum, but some are wind vectors not the streamline, which is the serial contour line with arrow on the contour plot.

some one ever mentioned that there was a script sample on the web site http://www.metvis.com.au/idl/but i can't get access to it.

so if there anybody who can load that web site and give a copy of both the script and the streamline image for me?

I will appreciate your help!

wenfang

Subject: Re: how to draw streamline Posted by Michael Galloy on Mon, 17 Mar 2008 14:27:07 GMT View Forum Message <> Reply to Message

On Mar 16, 11:22 pm, wfz...@bjmb.gov.cn wrote:

```
>> On Mar 7, 7:55 am, "Kenneth P. Bowman" <k-bow...@null.edu> wrote:
>>> In article
>>> < 92bef8cb-bd54-48b7-b54c-2ff9f4f75...@s8g2000prg.googlegroups .com >,
>>> wenfang_z...@hotmail.com wrote:
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>>> Here is a sample code to plot 2-D streamlines using VEL.
>>> By default VEL chooses the initial points randomly, but the
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>>> Ken Bowman
>>> PRO STREAMLINE DEMO
>>> n = 50
>>> x = FINDGEN(n)/(n-1)
>>> y = FINDGEN(n)/(n-1)
>>> xx = REBIN(x, n, n)
>>> yy = REBIN(REFORM(y, 1, n), n, n)
>>> u = -SIN(!PI*xx)*COS(!PI*yy)
>>> v = COS(!PI*xx)*SIN(!PI*yy)
>>> VEL, u, v, NVECS = 100, NSTEPS = 100, length = 0.5
>>> END
>> Following on from Ken's example, you might also try,
>> iVector, u, v, x, y, /STREAMLINES, STREAMLINE_NSTEPS=25
>
>> -Chris
>
> thanks for all response from you.
> now I am a little comfused, what kind of line can be called as wind
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> contour plot line with arrow, not the small lines with arrow, I don't
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I think you are talking about OSTR (image-guided streamlines) in this diagram:

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http://michaelgalloy.com/wp-content/uploads/2008/03/flow.png

> all of you can have a look and understand what I mean.

I have thought about making implementations of some of the visualizations in that diagram. I have a (very slow) implementation for LIC:

http://michaelgalloy.com/2007/12/09/lic-flow-code.html

Mike
-www.michaelgalloy.com
Tech-X Corporation
Software Developer II

Subject: Re: how to draw streamline
Posted by mankoff on Mon, 17 Mar 2008 21:52:44 GMT
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```
On Mar 17, 10:27 am, "mgal...@gmail.com" <mgal...@gmail.com> wrote:
> On Mar 16, 11:22 pm, wfz...@bjmb.gov.cn wrote:
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    Mike
    --www.michaelgalloy.com
```

Tech-X CorporationSoftware Developer II

Are all 6 images the same data? It looks like it, but it really shows some of the limitations of a simple vector field graphic... Wow.

Subject: Re: how to draw streamline
Posted by Michael Galloy on Mon, 17 Mar 2008 22:31:52 GMT
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```
On Mar 17, 3:52 pm, mankoff <mank...@gmail.com> wrote:
> On Mar 17, 10:27 am, "mgal...@gmail.com" <mgal...@gmail.com> wrote:
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```
    Mike
    --www.michaelgalloy.com
    Tech-X Corporation
    Software Developer II
    Are all 6 images the same data? It looks like it, but it really shows
    some of the limitations of a simple vector field graphic... Wow.
```

Yes, all six images are from the same data. And yes, I think the standard grid of vectors is not very useful.

Mike

__

www.michaelgalloy.com Tech-X Corporation Software Developer II

Subject: Re: how to draw streamline
Posted by wfzhao on Tue, 18 Mar 2008 06:56:06 GMT
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```
> On Mar 17, 3:52 pm, mankoff <mank...@gmail.com> wrote:
>
>
>
>
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> --www.michaelgalloy.com
> Tech-X Corporation
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thanks for you response.

I think OSTR and GSTR are what I need.

and I download the source code from your web site named mg_lic.pro and run in IDL, but it causes my cpu 100% and my computer crash down. so may I use it correctly or I can adjust some parameter to decrease the data?

for the first gird, I already do it successfully on the countour plot, which means to overplot wind grid arrow on the contour plot map.

wenfang

>

Subject: Re: how to draw streamline
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- > plot map.

MG_LIC is very processor intensive; it will take a few minutes at 100% of the CPU (depending on processor speed). It is slow because it loops through the elements of the vector field. I have a start on a DLM to do this that hopefully would be much faster, but I just haven't had time to finish it yet.

Mike

--

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