
Subject: plot tangential vector

Posted by [nakisa](#) on Sun, 13 Jan 2008 05:41:37 GMT

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hi everybody

I need plot on each (x,y) a tangential vector with known magnitude , I

have a file with three columns , x ,y , A.

where A is the magnitude of vector .

can anybody help me ?

best,nakisa

Subject: Re: plot tangential vector

Posted by [Spon](#) on Wed, 16 Jan 2008 13:19:14 GMT

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On Jan 16, 4:47 am, nakisa <nakisa.noor...@gmail.com> wrote:

> Hi

> Arrow ,as far as I understand , give initial and final point and draw

> a vector. My case is different. I have the initial point and want to

> draw a tangential vector !so I can't use Arrow for this aim.

> Nakisa

In that case, maybe VELOVECT will do what you want? Although, surely if you have the vectors' magnitudes and directions you can just use ARROW after working out your X1/Y1 values? It may even be simpler than trying to get your head around constructing the correct U & V arrays for VELOVECT! :-)

Good luck!

Chris

Subject: Re: plot tangential vector

Posted by [JMB](#) on Wed, 16 Jan 2008 13:44:47 GMT

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Does this short example help you?

N = 200

X = FINDGEN(N)

Y = 10*SIN(x/16)-10*COS(x/8+2)

A = abs(16*SIN(x[1:N-2]/4.))

PLOT, X, Y

```
vx=X[2:N-1]-X[1:N-2]
vy=(Y[2:N-1]-Y[0:N-3])/2.
```

```
Norm=A/sqrt(vx^2+vy^2)
```

```
ARROW,X[1:N-2],Y[1:N-2],X[1:N-2]+Norm*vx,Y[1:N-2]+Norm*vy,/
DATA,color=220
PLOT, X, Y, /noerase
```

```
END
```

Regards,

Jérôme

Subject: Re: plot tangential vector
Posted by [nakisa](#) on Sat, 19 Jan 2008 05:58:25 GMT
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hi Jerome
thanks but it isn't what I need. i want at each position (x,y) it
suppose a circle and plot a tangential vector with given magnitude !!!
nakisa

On Jan 16, 4:44 pm, JMB <jmb.lo...@gmail.com> wrote:

```
> Does this short example help you?
>
> N = 200
> X = FINDGEN(N)
> Y = 10*SIN(x/16)-10*COS(x/8+2)
> A = abs(16*SIN(x[1:N-2]/4.))
>
> PLOT, X, Y
>
> vx=X[2:N-1]-X[1:N-2]
> vy=(Y[2:N-1]-Y[0:N-3])/2.
>
> Norm=A/sqrt(vx^2+vy^2)
>
> ARROW,X[1:N-2],Y[1:N-2],X[1:N-2]+Norm*vx,Y[1:N-2]+Norm*vy,/
> DATA,color=220
> PLOT, X, Y, /noerase
>
> END
>
```

> Regards,
>
> Jérôme
