Subject: plot tangentail 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 tangentail 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 tangentail 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 tangentail 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 tangentail 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