
Subject: Re: vector matrix multiplication

Posted by [Craig Markwardt](#) on Mon, 11 Apr 2005 14:54:32 GMT

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"pete" <schuck@ppdmail.nrl.navy.mil> writes:

- > Is there any way to do vector matrix operations in IDL?
- >
- > For example I have an array of N 2x2 matrices: G[0:1,0:1,N] and
- > a vector V[0:1]. I would like G[0:1,0:1,i]##V at each location "i"
- > WITHOUT using a for loop. Is that possible?

Since your matrix multiplications are so simple, it is straightforward to do the matrix multiplication "by hand".

```
result = dblarr(2,N)
for i = 0, 1 do result(i,*) = g(0,i,*)*v(0) + g(1,i,*)*v(1)
```

Which results in only two loop iterations.

Craig

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Craig B. Markwardt, Ph.D. EMAIL: craigmnet@REMOVEcow.physics.wisc.edu
Astrophysics, IDL, Finance, Derivatives | Remove "net" for better response

Subject: Re: vector matrix multiplication

Posted by [Benjamin Luethi](#) on Mon, 11 Apr 2005 15:28:31 GMT

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you could write out the matrix multiplication:

```
result = [ G[0,0,]*V[0]+G[1,0,]*V[1], G[0,1,]*V[0]+G[1,1,]*V[1] ]
```

but this looks pretty ugly and I don't know if it's an improvement...

Ben

On 11 Apr 2005 07:00:20 -0700, pete <schuck@ppdmail.nrl.navy.mil> wrote:

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> thanks,
>
> -- Pete
>

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