Subject: Re: vector matrix multipication
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 matrics: G[0:1,0:1,N] and
> a vector V[0:1]. I wouled 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
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Subject: Re: vector matrix multipication
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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