Subject: Re: Multiply matrix
Posted by Vince Hradil on Fri, 16 Feb 2007 20:08:27 GMT
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On Feb 16, 1:26 pm, "L. Testut" <gaillac.s...@free.fr> wrote:
> Hi all,
> A simple question. I want to multiply the third dimension of a matrix
> whitout using loop
>
> H[lon,lat,time]*filter along the time dimension for all lat,lon
>
> Thanks,
> L.

Does this work:

filter = [[filter*0],[filter*0],[filter]]
hnew = h*filter

Subject: Re: Multiply matrix
Posted by Bob[3] on Fri, 16 Feb 2007 20:24:51 GMT
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> filter = [[filter*0],[filter*0],[filter]]
> hnew = h*filter

That would zero out all the lat & lon values wouldn't it?

filter = [[filter/filter],[filter/filter],[filter]]

should retain the lat & lon values.

Subject: Re: Multiply matrix
Posted by Vince Hradil on Fri, 16 Feb 2007 21:36:58 GMT
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On Feb 16, 2:24 pm, "Bob Crawford" <Snowma...@gmail.com> wrote:
>> filter = [[filter*0],[filter*0],[filter]]
>> hnew = h*filter
>
> That would zero out all the lat & lon values wouldn't it?
>
> filter = [[filter/filter],[filter/filter],[filter]]
>
> should retain the lat & lon values.

Of course, I was trying to do two things at once...

Subject: Re: Multiply matrix
Posted by L. Testut on Sun, 18 Feb 2007 15:12:05 GMT
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On 16 fév, 21:36, "hradilv" <hrad...@yahoo.com> wrote:
> On Feb 16, 2:24 pm, "Bob Crawford" <Snowma...@gmail.com> wrote:> > filter =
[[filter*0],[filter*0],[filter]]
>>> hnew = h*filter
>
>> That would zero out all the lat & lon values wouldn't it?
>
>> filter = [[filter/filter],[filter/filter],[filter]]
>
>> should retain the lat & lon values.
>
> Of course, I was trying to do two things at once...

Sorry it doesn't work in my case I want to avoid this loop:

FOR I=0,nz-1 DO
z[indgen(nx),indgen(ny),I]=Z[indgen(nx),indgen(ny),I]*filter

I have a H[nx,ny,nz] where nz is the time. So i have nz field in time
that i want to multiply by a filter of size nz.

Is it possible to avoid this loop ?

Thanks
Laurent

Subject: Re: Multiply matrix
Posted by Wox on Mon, 19 Feb 2007 09:26:36 GMT
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This:

FOR I=0,nz-1 DO
z[indgen(nx),indgen(ny),I]=Z[indgen(nx),indgen(ny),I]*filter

can be done like this:

z*=rebin(reform(indgen(nz),1,1,nz),nx,ny,nz,/sample)

However, is this really what you want? i have the feeling you want to
do something else here, or is it just me :-)?

On 18 Feb 2007 07:12:05 -0800, "L. Testut" <gaillac.spam@free.fr>
wrote:

> Sorry it doesn't work in my case I want to avoid this loop:
>
> FOR I=0,nz-1 DO
> z[indgen(nx),indgen(ny),I]=Z[indgen(nx),indgen(ny),I]*filter
>
> I have a H[nx,ny,nz] where nz is the time. So i have nz field in time
> that i want to multiply by a filter of size nz.
>
> Is it possible to avoid this loop ?

Subject: Re: Multiply matrix
Posted by Wox on Mon, 19 Feb 2007 09:27:30 GMT
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Oeps, indgen(nz) must be filter.

On Mon, 19 Feb 2007 10:26:36 +0100, Wox <nomail@hotmail.com> wrote:

> z*=rebin(reform(indgen(nz),1,1,nz),nx,ny,nz,/sample)
