
Subject: Re: summation and 3d plot

Posted by [Jeremy Bailin](#) on Fri, 30 Oct 2009 17:09:53 GMT

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On Oct 30, 12:12 am, pp <pp.pente...@gmail.com> wrote:

> On Oct 30, 1:55 am, Jeremy Bailin <astroco...@gmail.com> wrote:

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>> Can't you replace the for loops with:

```
>
>> nnx = n_elements(nx)
>> nny = n_elements(ny)
>> nN = n_elements(N)
>> x0 = rebin(reform(x0,nnx,1,1),nnx,nny,nN)
>> y0 = rebin(reform(y0,1,nny,1),nnx,nny,nN)
>> phi = rebin(reform(phi,1,1,nN),nnx,nny,nN)
>> r0 = sqrt(x0^2 + y0^2)
>> x = abs(x0*cos(phi) + y0*sin(phi))
>> y = -x0*sin(phi) + y0*cos(phi)
>> h = 50.-y
>> deffs = sqrt(d^2 + 2./mu*tan(a/2.*!pi/180.))
>> S = deffs^2 * sin(atan(x/h))^3 / (4.*h)^2 * 100.
>> deffr = d + alog(2.)/mu*tan(a/2.*!pi/180.)
>> R = sqrt((h/f*ri)^2 + (deffr*(h+f)/f)^2)
```

>
>> -Jeremy.

>
> Yes, that is about what I was hinting at when I said it could be done
> without loops. But given the initial question, I thought that jumping
> directly to this level might make it difficult to understand.

Oddly enough, I think this version is much more readable than the looped version... I think that's a sign of doing too much IDL programming! ;-)

-Jeremy.
