
Subject: Spherical surface plot

Posted by [Mrunmayee](#) on Sat, 02 May 2009 07:51:39 GMT

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Hello,

I have been trying to create a spherical surface plot and have partially succeeded. Here is what I did to create a surface:

```
theta3 = findgen(361)/2. * !pi/180.      ; 0<= theta <= !pi
phi3 = findgen(361) * !pi/180.           ; 0<= phi <= 2*!pi
x3 = sin(theta3) # cos(phi3)
y3 = sin(theta3) # sin(phi3)
sph = sqrt( (1. - x3^2 - y3^2) > 0.)      ; This is to avoid
"floating illegal operand" error.
sph1 = sph                                ; Just for comparison
with sph, to be modified as follows
sph2 = sph[181:360,*]                     ; Array containing
elements for !pi/2 < theta <= !pi i.e. southern hemisphere
sph1[181:360,*] = -sph2                   ; Since sqrt will just take
+ve root, this inverts and creates southern hemisphere.
```

Success: fsc_surface, sph1, x3, y3 ; Glorious spherical surface

surface, sph1, x3, y3 ; Rather pathetic

rendering of surface but still a spherical surface

Failure: shade_surf, sph1, x3, y3 ; Nothing viewd. NOTHING AT
ALL. Whether device, decomposed=0/1 doesn't matter.

Anyone knows what's happening?

Thanks,

Gauri.
