
Subject: using mesh_obj,4

Posted by [astroboy2k](#) on Tue, 09 Jun 2009 20:02:35 GMT

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Hello all.

I'm trying to generate visualizations of spherical harmonics and have a question about using mesh_obj to do this. This is the basic code:

data=spher_harm(theta,phi,L,M) ;theta and phi are 32x32 arrays,
located at constant increments of latitude and longitude

```
oModel = OBJ_NEW('IDLgrModel')  
MESH_OBJ, 4, vertices, connectivity, data, /CLOSED  
sphericalCoordinates = CV_COORD(FROM_RECT = vertices, /TO_SPHERE)  
elevation = REFORM(sphericalCoordinates[2, *], N_ELEMENTS  
(sphericalCoordinates[2, *]))
```

```
oPalette = OBJ_NEW('IDLgrPalette',r,g,b)  
oPolygon = OBJ_NEW('IDLgrPolygon', vertices, POLYGONS = connectivity,  
SHADING = 1, $  
    PALETTE = oPalette)  
oModel -> Add, oPolygon
```

```
mylight1 = OBJ_NEW('IDLgrLight', TYPE=0, COLOR=[255,255,255]) ;  
Ambient white  
mymodel = OBJ_NEW('IDLgrModel')  
mymodel->Add, mylight1
```

```
xsize=400  
ysize=xsize
```

```
XOBJVIEW, oModel, SCALE = .8, $  
TITLE =titl, background=[210,210,210], $  
/  
just_reg,xsize=xsize,ysize=ysize,xoffset=2200,yoffset=0,stationary=mymodel,tlb=tlb
```

Of course, with most values of L and M the corresponding spherical harmonic has both positive and negative values. From the experimentation I've done, it seems like mesh_obj just won't deal with negative values of "data". Can anyone tell me if I'm correct in concluding this?

Thanks,

Mark
