My Insane IDL Notebook

```
print, 'Hello world! IDL Notebooks are awesome.'
```

[1]:

```
Hello world! IDL Notebooks are awesome.
```

```
; CHIANTI!

which_line, "fe_12", 195
```

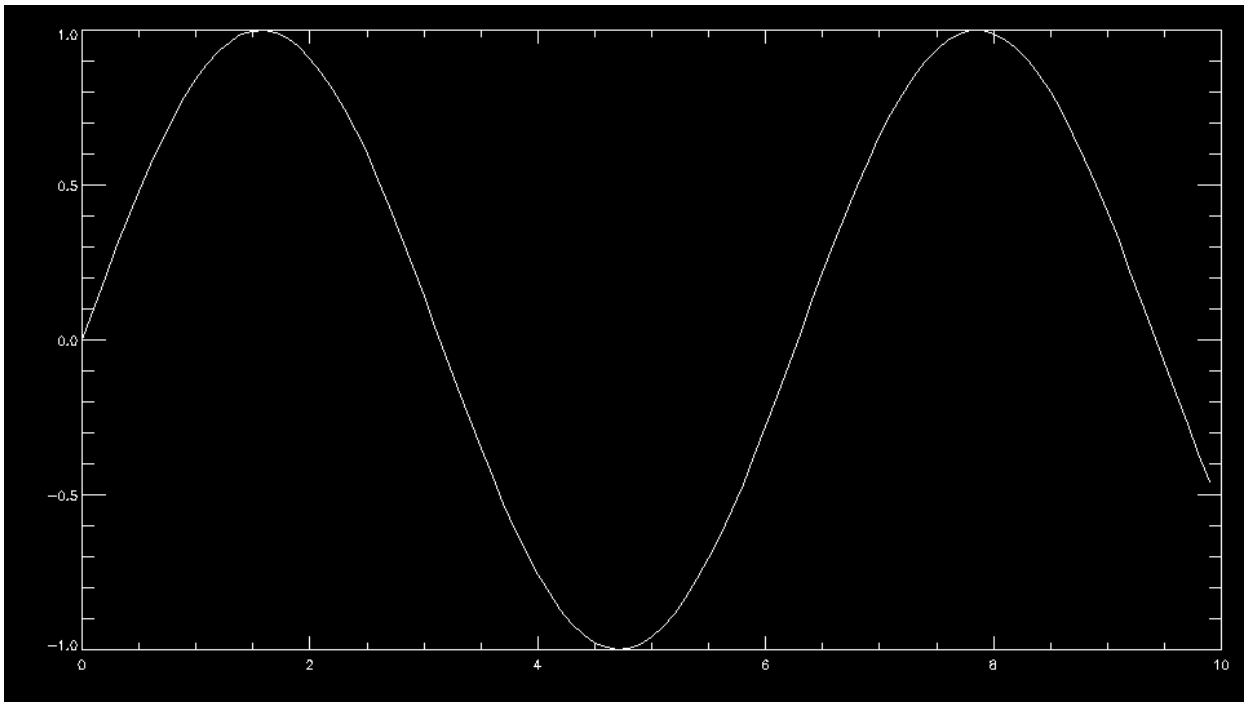
[1]:

```
     Wavelength   i   j  Lower level           Upper level
A-value
        193.509   1  29  3s2 3p3 4S3/2       - 3s2 3p2 3d 4P3/2
8.88e+10
        194.609   1  28  3s2 3p3 4S3/2       - 3s 3p4 2P1/2
4.93e+09
*       194.903   2  34  3s2 3p3 2D3/2       - 3s2 3p2 3d 2D5/2
2.27e+09
        195.119   1  27  3s2 3p3 4S3/2       - 3s2 3p2 3d 4P5/2
8.67e+10
        195.179   2  33  3s2 3p3 2D3/2       - 3s2 3p2 3d 2D3/2
5.94e+10
        196.640   3  34  3s2 3p3 2D5/2       - 3s2 3p2 3d 2D5/2
4.48e+10
        196.921   3  33  3s2 3p3 2D5/2       - 3s2 3p2 3d 2D3/2
9.90e+09
```

Use keyword /all to include lines with theoretical wavelengths.

```
; plot a sine wave
x = findgen(100) / 10.0
y = sin(x)
plot, x, y
```

[1]:

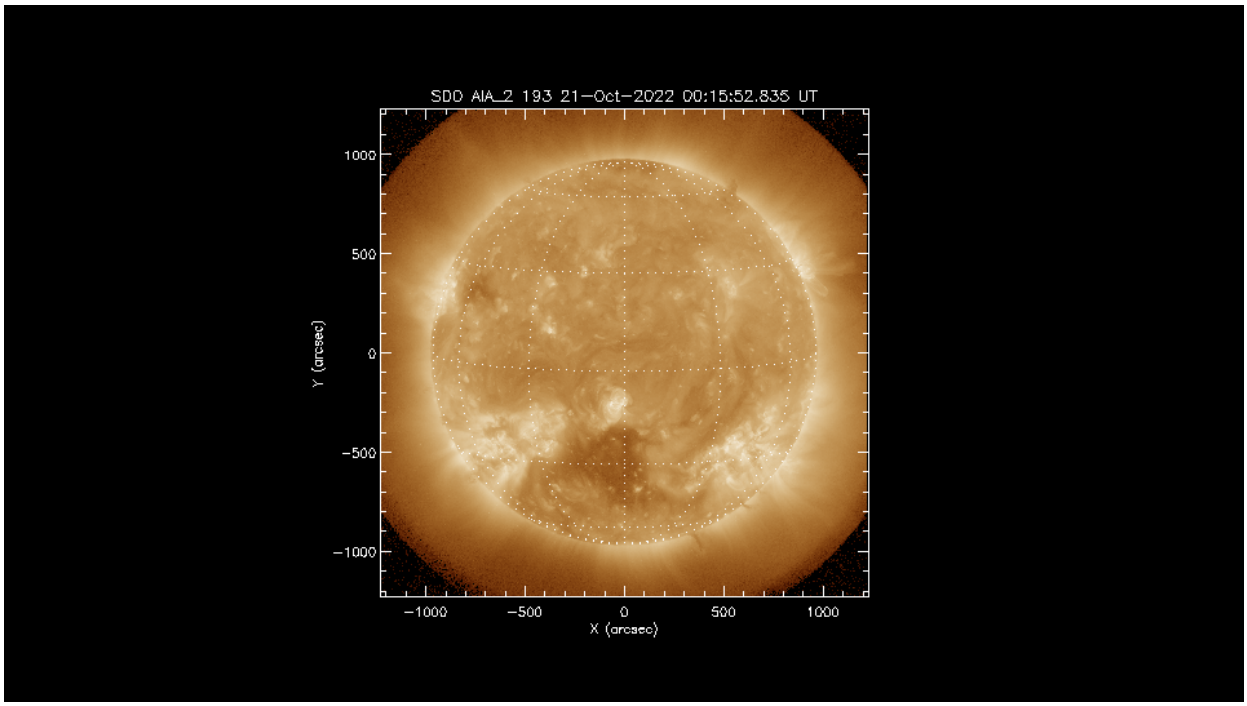



```
; import and plot an SDO image

read_sdo, "./aia.lev1_euv_12s.2022-10-21T001551Z.193.image.fits", index,
data

index2map, index, data, sdo_map

aia_lct,wave=193,/load

plot_map, sdo_map, /log, grid=30
```

[1]:

```
 -------------------------
| Uncompressing to> /tmp/ |
 -------------------------
 ------------------------------------------------------------------------
-------------------------
| ./aia.lev1_euv_12s.2022-10-21T001551Z.193.image.fits ->
/tmp/AIA20221021_001552_0193.fits |
 ------------------------------------------------------------------------
-------------------------
```

[2]:


SDO AIA_2 193 21-Oct-2022 00:15:52.835 UT
1000
500
0
-500
-1000
Y (arcsec)
-1000
-500
0
500
1000
X (arcsec)