

ezRA - Easy Radio Astronomy

– Rinearn 3d Plots How To

- Oct-21-2024

Linux:

I moved to my directory, with this command,
cd ezRABase/lto16h

The command (using -ezConPlotRangeL to save time)
python3 ../ezRA/ezCon241021a.py data/2021_200_00.rad.txt -ezConPlotRangeL 87 87 -
ezCon087Csv 1
creates an
ezCon087antBTVT.csv
file (which may be big, mine was 94 MB).

Run the command
ring3d ezCon087antBTVT.csv
which takes almost 30 seconds to render all those 5,067 samples

Option menu - Frame off

Option menu - Flat on
does this view from above (Zenith) look like the ezCon087 plot ?
Good.
Option menu - Flat off

Option menu - Flat off

You may try mouse-dragging the plot to see it from different angles,
but I found it delicate (because it renders so slowly).

Maybe move the Camera instead:

Edit menu - Set Camera (again, slow to render)

My default

Horizontal Angle

Vertical Angle (Z Axis)

was 0.65, 1.04 (in radians, not degrees)

Try changing to 0.3, 0.3 and click the SET button.

The Vertical Angle (Z Axis) is from the Zenith overhead.

File Save Image

to the default
graph3d.png
Then I rename that file to
ezCon087antBTVTCsv.png
with
mv graph3d.png ezCon087antBTVTCsv.png

Similar to above for the 3 ezSky plots (ezSky400, ezSky500, and ezSky520),
but also do Option menu - Reverse X

cd ezRABase/lto16h

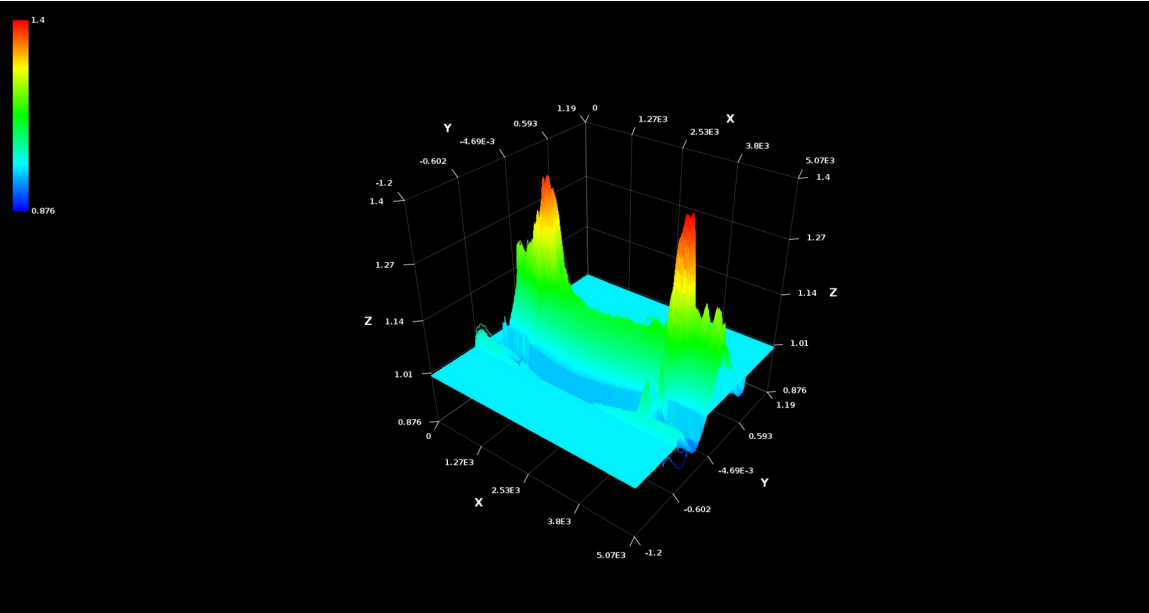
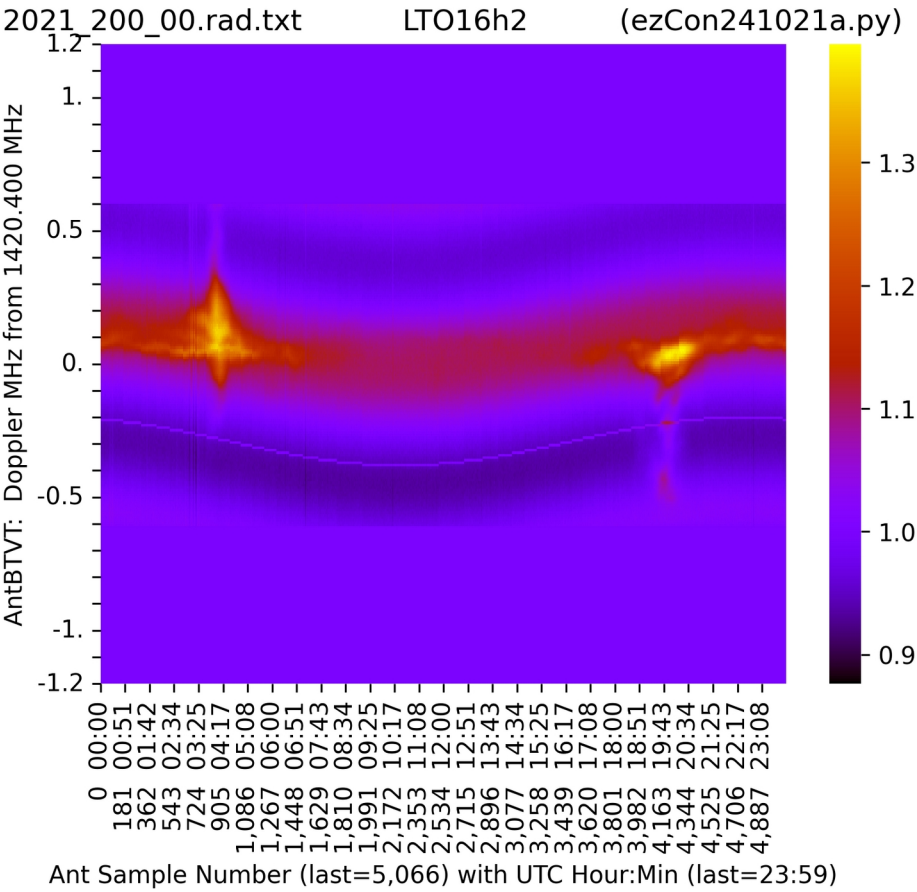
The command (using -ezConPlotRangeL to save time)
python3 ../ezRA/ezSky241021a.py -ezSkyInput 18 . -ezSkyMaskIn
../ezRA/ezSkyMaskLtoNot_46.5_-49.7.npz
-ezSkyPlotRangeL 400 520 -ezSky400Csv 1 -ezSky500Csv 1 -ezSky520Csv 1
creates 3 big files,
ezSky400RI_18AntBTVTAvg.csv
ezSky500GMI_18AntBTVTAvg.csv
ezSky520GOI_18AntBTVTAvg.csv
file (which may be big, mine were 17MB, 18MB, and 18MB).

In turn, I processed each CSV file,
ring3d ezSky400RI_18AntBTVTAvg.csv
ring3d ezSky500GMI_18AntBTVTAvg.csv
ring3d ezSky520GOI_18AntBTVTAvg.csv

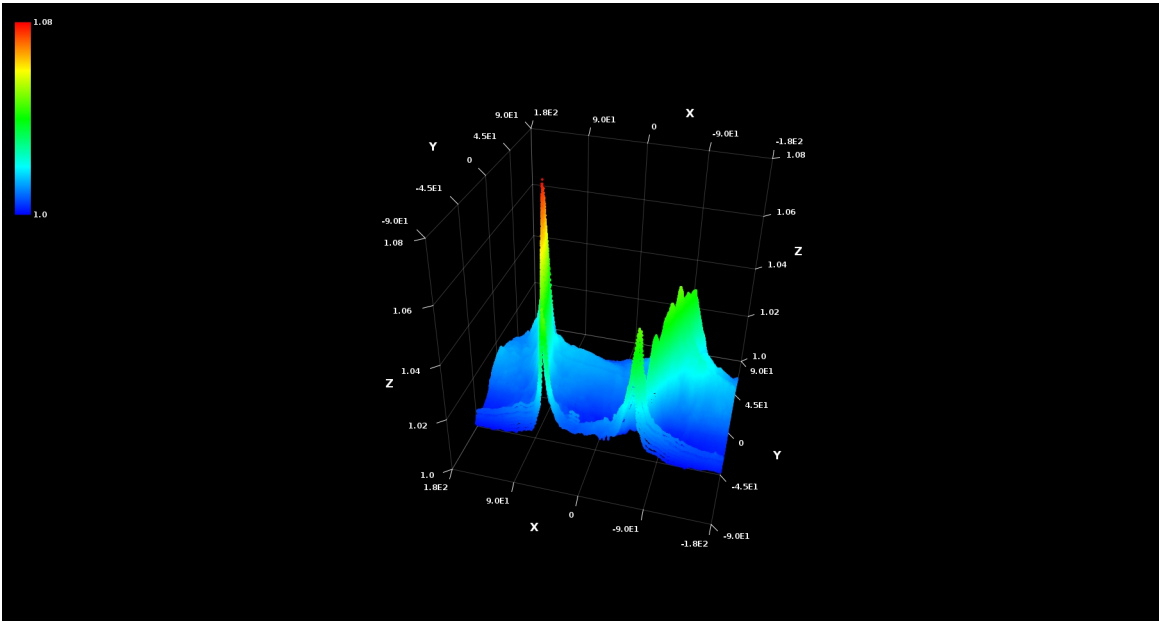
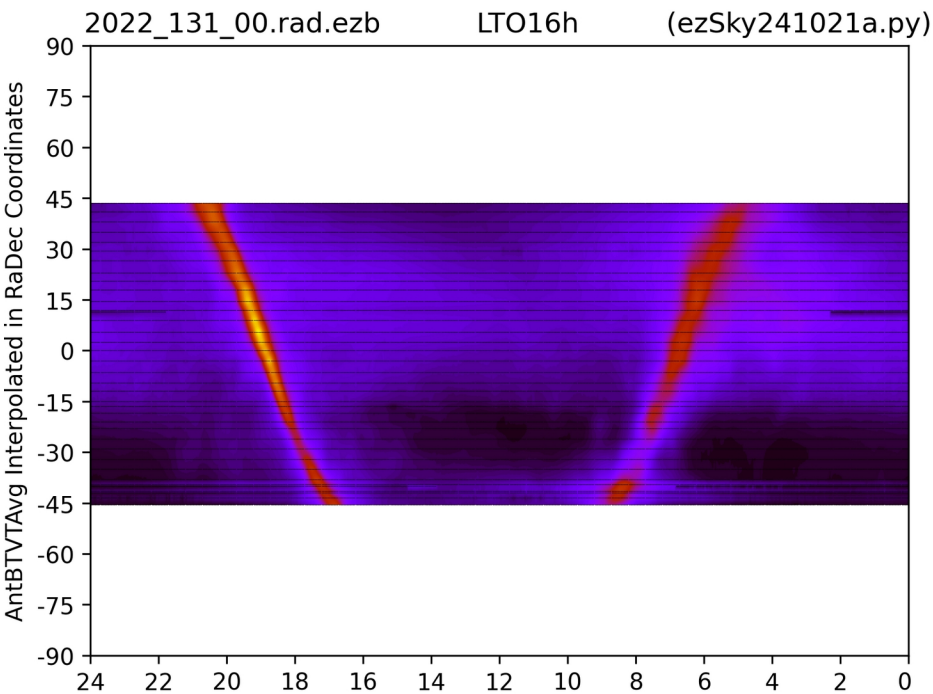
Also each ezSky plot needs
Option menu - Reverse X

Eventually I renamed each CSV file in turn,
mv graph3d.png ezSky400RI_18AntBTVTAvgCsv.png
mv graph3d.png ezSky500GMI_18AntBTVTAvgCsv.png
mv graph3d.png ezSky520GOI_18AntBTVTAvgCsv.png

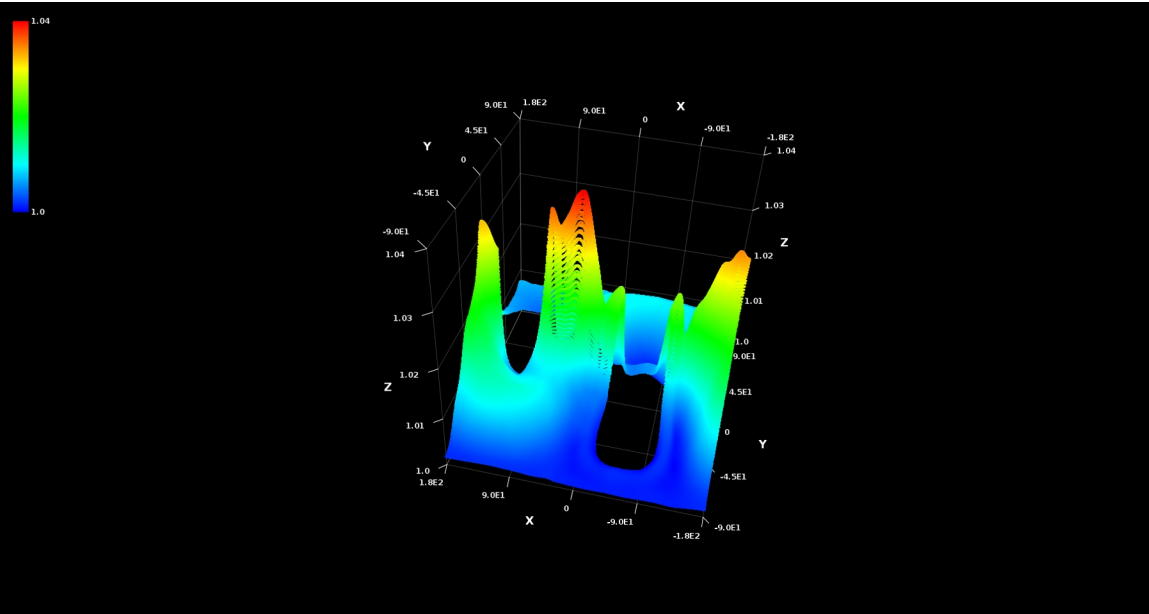
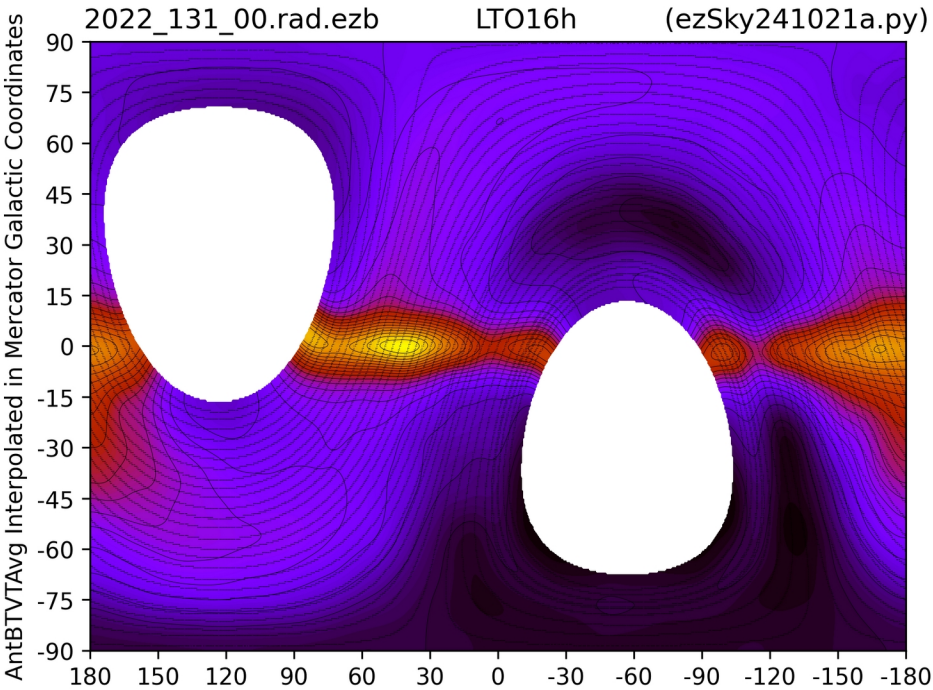
ezCon087



ezSky400



ezSky500



ezSky520

