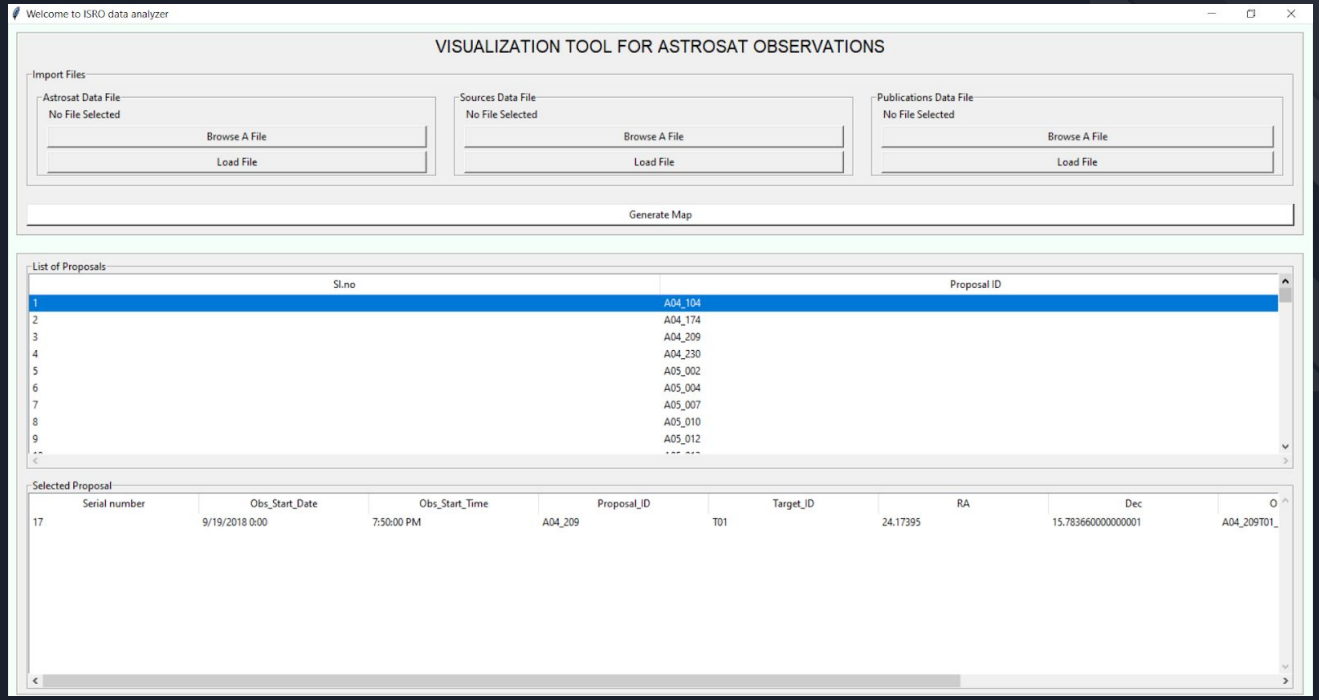
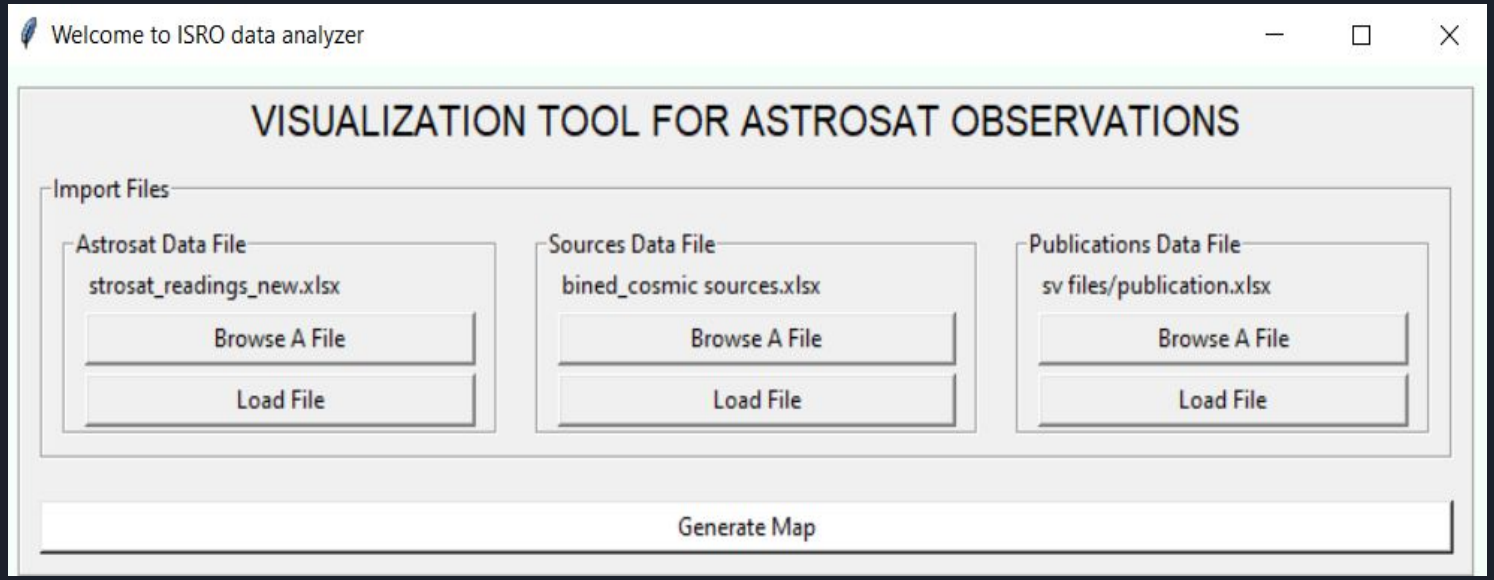
ISRO’S WEB BASED VISUALIZATION TOOL FOR ASTROSAT

HOW OUR APPLICATION LOOKS LIKE?



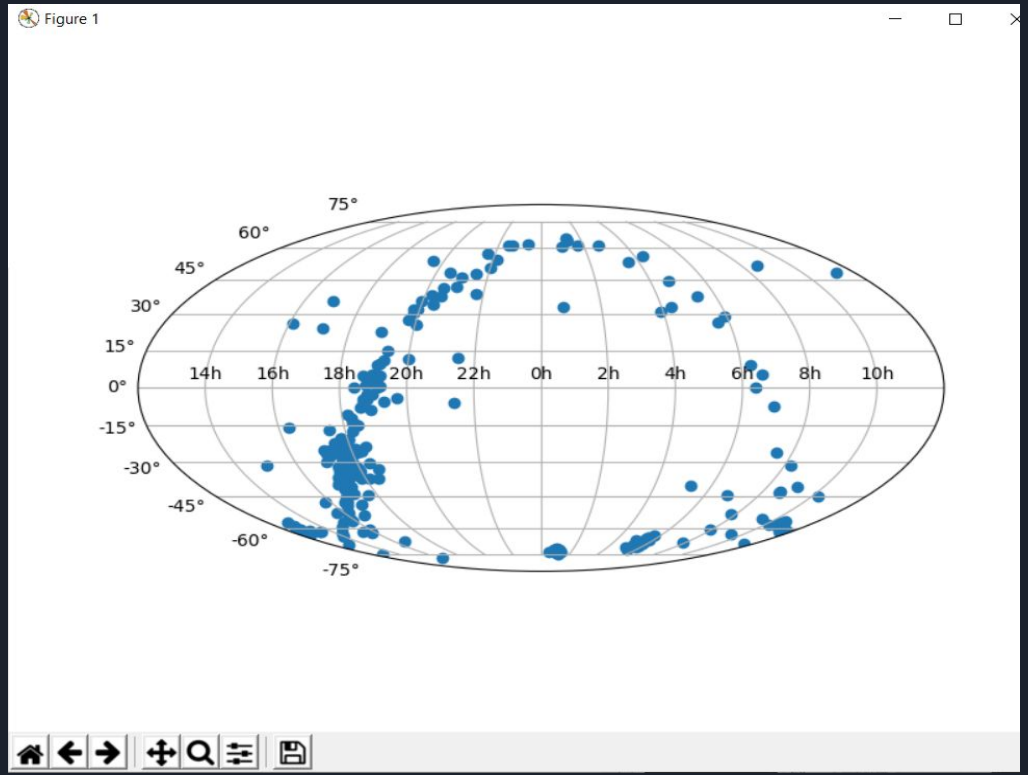
HOW DOES THE APPLICATION WORK?

STEP - 1



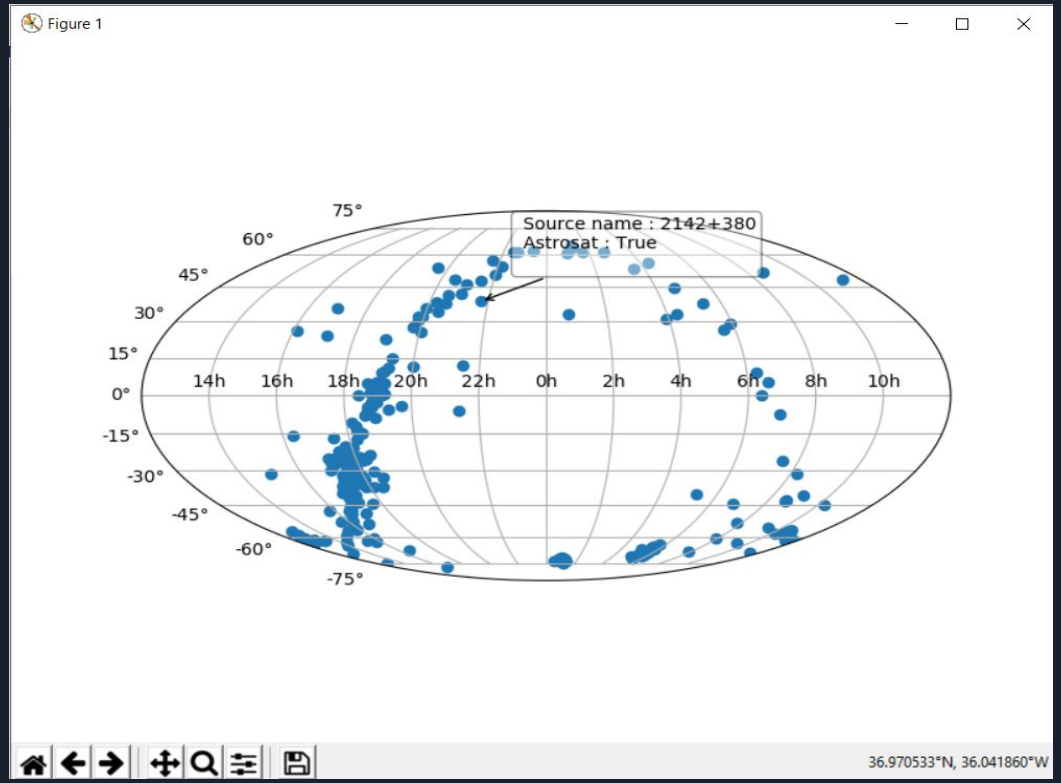
HOW DOES THE APPLICATION WORK?

STEP - 2



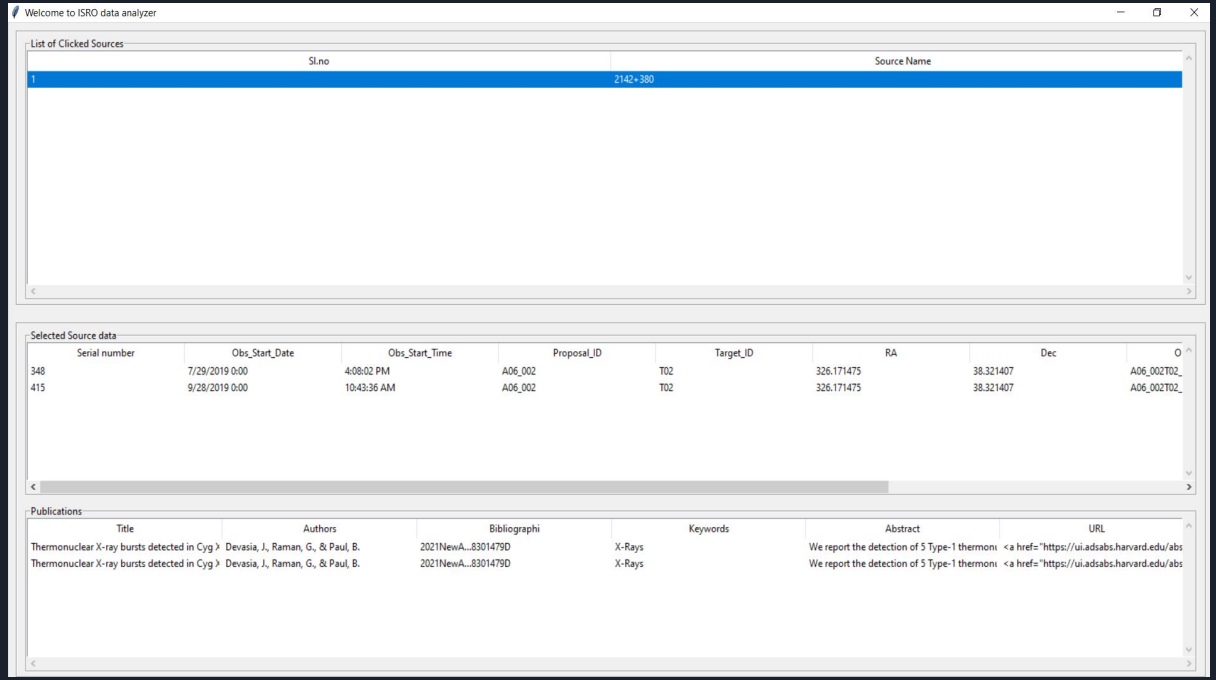
HOW DOES THE APPLICATION WORK?

STEP-3



HOW DOES THE APPLICATION WORK?

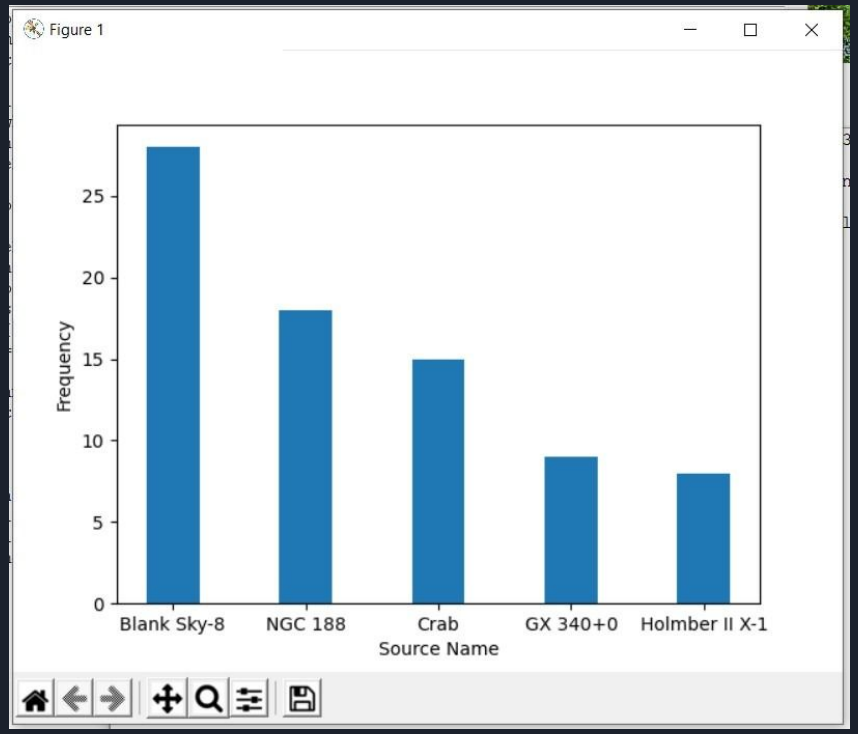
STEP-4



DATA ANALYSIS

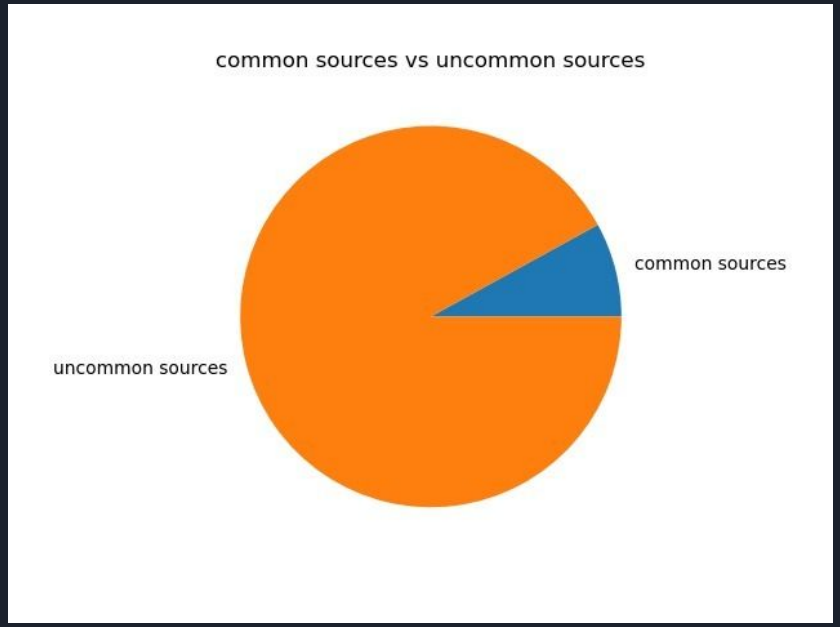
FREQUENCY VS SOURCE NAME:

- As we can observe from the graph, Blank Sky-8 was the source which was detected most number of times.
- Following it NGC 188, Crab, GX 340+0 were detected in the decreasing order of their frequency.
- Holmber II X-1 was detected least number of times compared to all other sources.



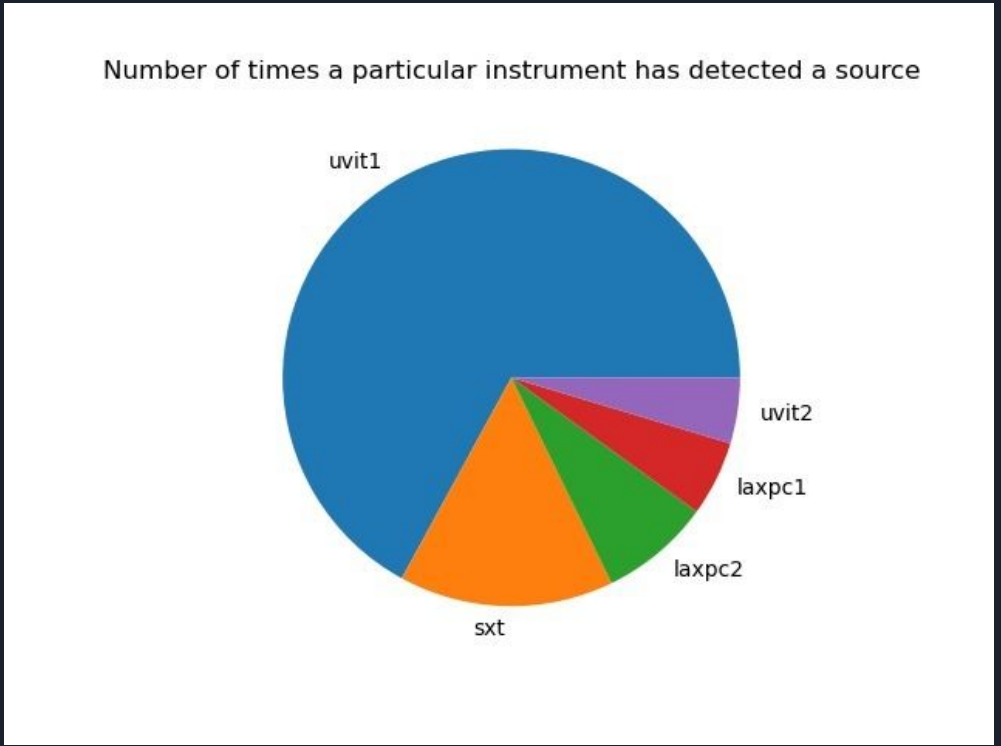
SOURCES OF ASTROSAT DATASET:

- Nearly 95% of the sources were not found in both the data sets and just a little percentage of them were in common.



NUMBER OF TIMES A PARTICULAR INSTRUMENT HAS DETECTED A SOURCE:

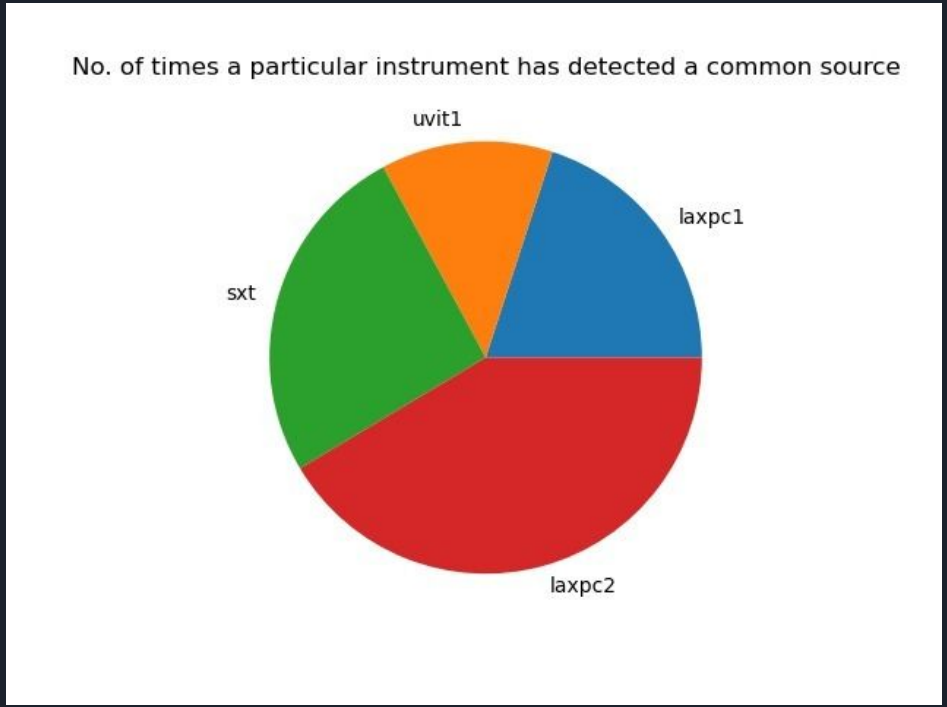
- There are a total of 5 instruments present namely uvit1, uvit2, sxt, laxpc1, laxpc2.
- 70% of the sources were detected by uvit1.
- 20% of the sources were detected by sxt.
- Rest of the instruments have detected the sources with considerably low percentage.



NO. OF TIMES A PARTICULAR INSTRUMENT HAS DETECTED A COMMON SOURCE:

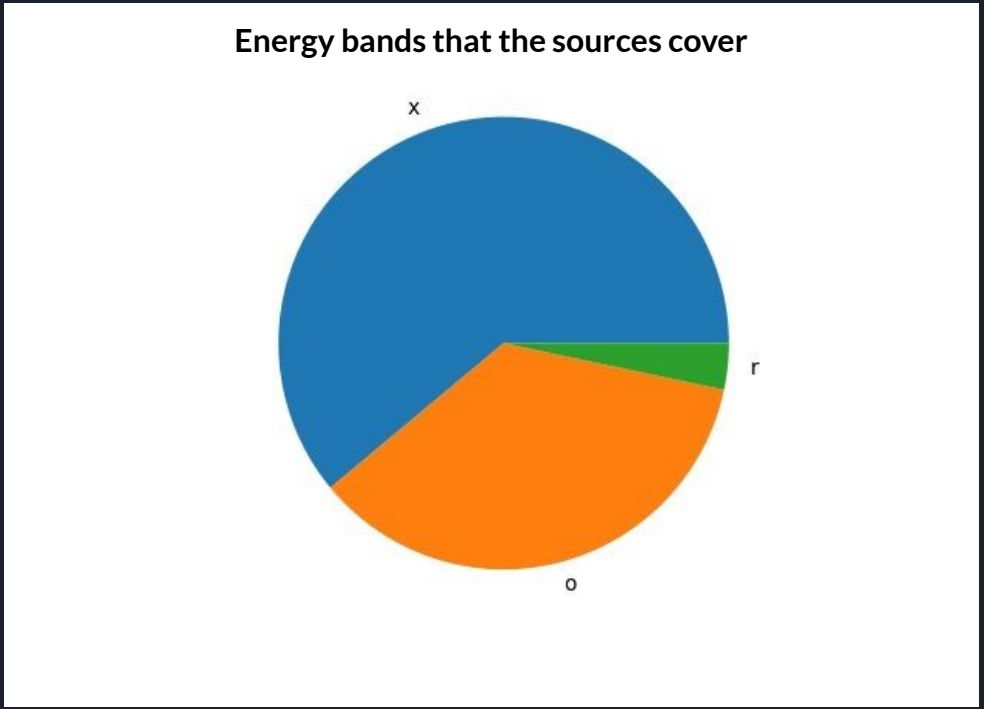
In the commonly detected sources,

- 45% percent of the sources were detected by laxpc2,
- 25% by sxt,
- 20% by laxpc1,
- and the rest by uvit1.



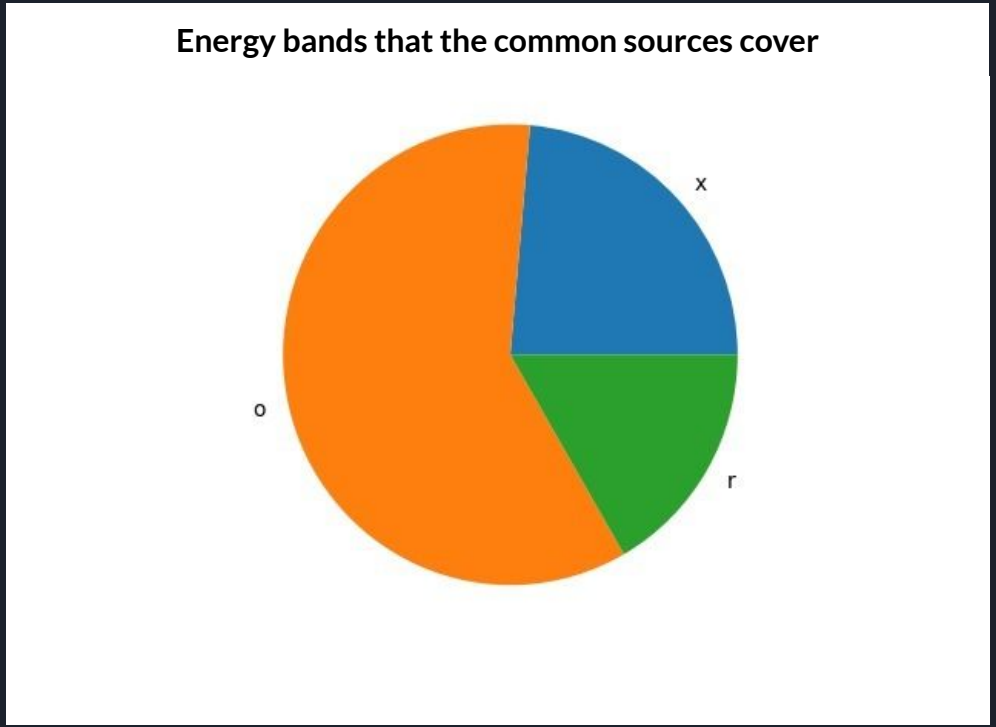
ENERGY BANDS THAT THE SOURCES COVER:

- Nearly 55% of the times, the sources covered the X-ray spectral band.
- 40% of the times, the sources covered the optical spectral band
- Less than 10% of times, the sources covered the radio spectral band.



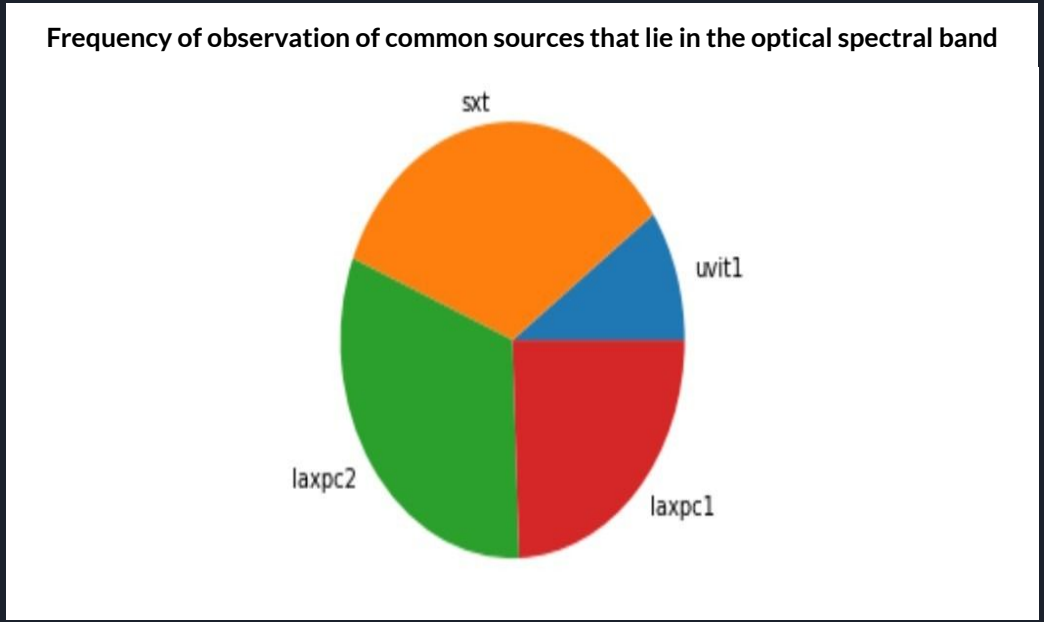
ENERGY BANDS THAT THE COMMON SOURCES COVER:

- In the commonly detected sources, more than 50% of times, lie in the optical spectral band
- Nearly 25% of times, the common sources were present in the X-ray spectral band
- And the rest were present in the radio spectral band



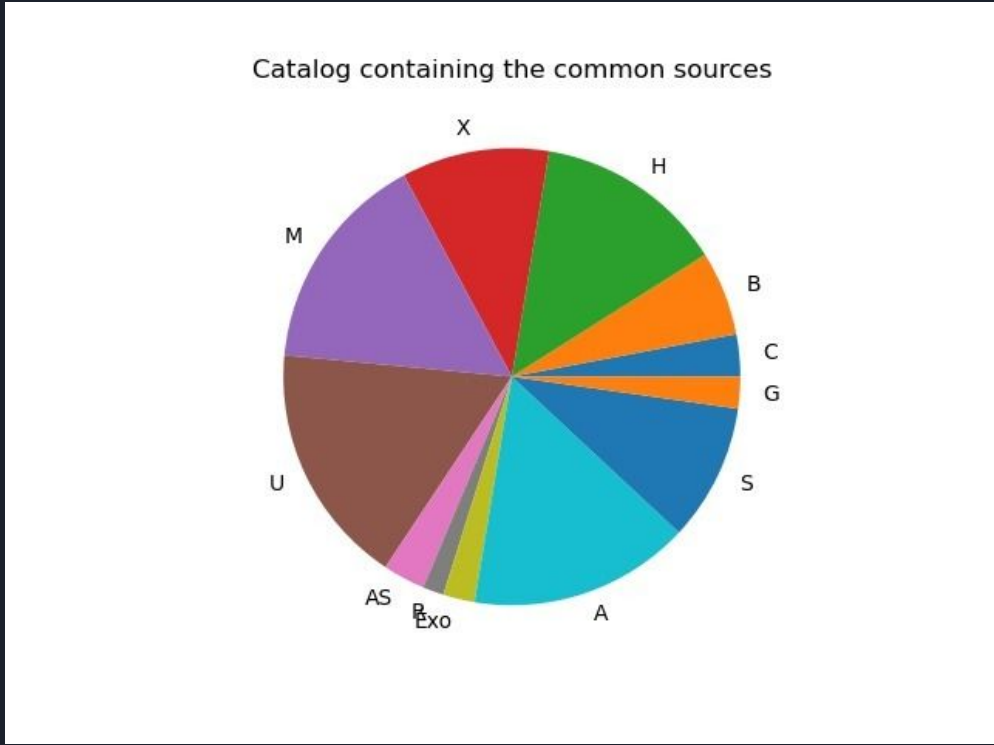
FREQUENCY OF OBSERVATION OF COMMON SOURCES THAT LIE IN THE OPTICAL SPECTRAL BAND:

- In the common sources observed, laxpc2 and sxt detect 30% of the sources each.
- laxpc1 detects about 25% of the common sources and the rest of them were detected by uvit1.



CATALOG CONTAINING THE COMMON SOURCES:

Here, you can see the common sources, and the frequency with which they appear.



- A: Ariel V sky survey
- AS: ASCA
- B: BeppoSAX
- C: Compton {gamma}-ray Observatory
- E: Einstein Observatory
- Exo: Exosat
- G: Ginga
- Gr: Granat
- H: HEAO A-1 sky survey
- Ha: Hakucho
- I: Indian X-ray Astronomy Experiment (IXAE)
- K: Kvant
- M: Mit OSO-7 sky survey
- OAO: Orbiting Astronomical Observatory
- R: ROSAT
- S: SAS 3
- SL: Space Lab
- T: Tenma
- U: Uhuru sky survey
- V: Vela-5 and -6 satellites
- X: Rossi XTE

SCALABILITY OF PRODUCT

THANK YOU!