XUVI

Python Libraries

NUMPY PANDAS
SCIPY ASTROPY
MATPLOTLIB

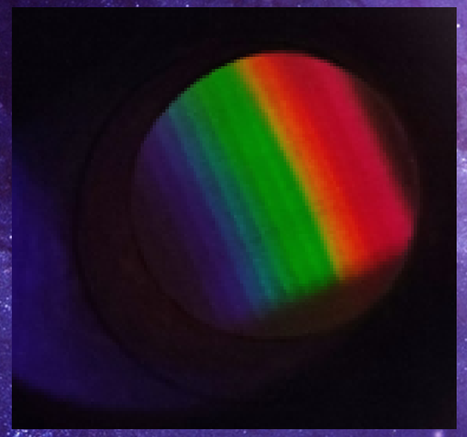
Basic Tools for Data Analysis

Spectroscopy

-Understanding the principles of spectroscopy
-Astronomical Spectroscopy & working of Spectroscope.
-Handcrafting Spectroscope & Visualisation of Solar Spectrum

JUX ON PYPI

-**JUX**: A Ready-to-use package & it is now Freely Available on Open Source Pypi Python Package Manager.



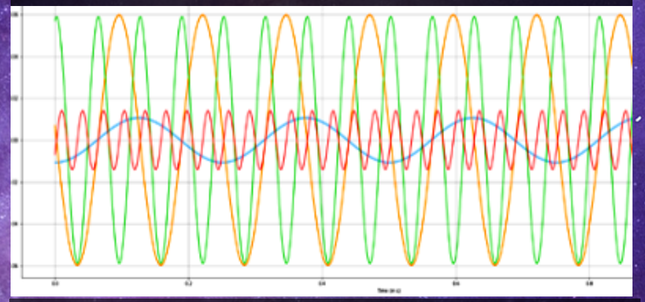
Observations Through Hand-Crafted Spectroscope

MENTEES:
Shreya Rajak, Nandan Madhuj, Ritik B Kumar, Jaya Santhi K Arnav, Priyanshu Bhatia

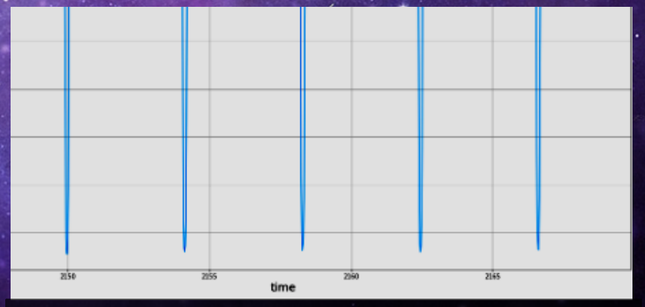
Exoplanet Detection

-Astronomical Methods for Detection of Exoplanets
-Preprocessing of Data by Development of Python Codes for Standard & Contrived Algorithms & Used of 4 methods

- Direct Imaging
- Radial Velocity
- Astrometry
- Transit Photometry



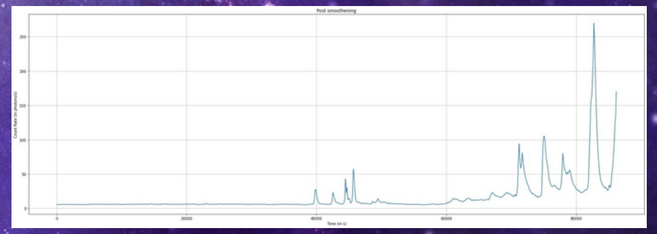
Astrometry: Individual Frequencies



Transit Photometry: Processed Data

Solar Flare Analysis

-Data Analysis from Chandrayaan XSM Observatory.
-Development of Python code to study the Solar Flares
-Classification & Categorization of each Solar Flare by its Recorded Intensity.



Solar Flare Curves

2020

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