**OLYMPUS TECH**

**Introduction**

The purpose of this project was to analyze the data from FITS file (Flexible Image transport System). There were two of such files 1) light curve – main project 2) bonus – extended project

My team consisting of 4 members has worked on both of these files.

**Light curve**

We accessed the data provided in the fits file using astropy library in python and decoded it two make two plots and both of these plots were plotted for continuous and discrete data.

1) PDSCAP FLUX vs TIME – i.e., how much of PDCSAP flux is flowing per unit time and we found it to lie in order of 10^6-10^7.

2) we checked the times at which SAP quality of the received data is > 0 and we plotted the data on the initial PDCSAP flux vs time graph.

3) From the next set of data of the fits file we plotted another pixelated aperture image from the array of image data

**Bonus**

We were again given similar data as the first fits file.

1) We generated an image from the given array of pixelated data which turned out to be a beautiful picture of space and it looks even better when plotted in ocean color.

2)From the rest of data stored in table… we made three other plots XI vs ETA; ETA correction vs ETA ; XI vs ETA correction.

3) One of the continuous plots turned out to be messy to view so we plotted a dotted graph .

CONCLUSION AND LOG -

IT WAS A FUN PROJECT. I WAS ALWAYS INTO SPACE AND WAS EVERYREADY TO WORK ON SUCH PROJECTS. IT TURNED OUT TO BE A GREAT EXPERIENCE FOR ME AND MY TEAM. I AM VERY MUCH INTO SPACE AND I WOULD LIKE TO BRAG ANY OF THE FUTURE OPPORTUNITIES IN THE CLUB TO WORK ON MORE AMAZING PROJECTS…..

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