Semester 1 2024
Astroinformatics I
Graded Practice 1

- Content: Application of what has been learned in class.

- Finished code, plots (if applicable to the tasks) and a short report in English summarizing your work is to be submitted at the end of our second session this week to this e-mail address: `nina.hernitschek@uantof.cl`

- You are allowed to work at this in between of our sessions, i.e. at home.

- Connecting to the internet is allowed.

- Working together/ sharing solutions is not allowed.

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1. From STScI's Mikulski Archive, download light curves from the TESS satellite.

For doing so, go to `https://archive.stsci.edu/tess/bulk_downloads/bulk_downloads_ffi-tp-lc-dv.html`.

Download this script and run it: `tesscurl_sector_73_lc.sh`

The script will download light curvefiles in FITS format. You can stop the script after you have downloaded approx. 15 - 20 files.

2. Open the light curves (FITS files) with topcat, ignore the error message.

Save each of the FITS files in the output format CSV.

3. Write a shell script to output a file containing all the file names of your CSV files. Run it.

4. Write a shell script to split this file containing the file names into small files containing only 5 each. Run it.

5. Open the light curve files in CSV format with TOPCAT. Plot their light curves. For doing so, identify the correct plot type and the relevant columns. Where does topcat get the units from?

6. Submit your solution via e-mail: code files, plots, and everything put together into a text document (LaTeX if possible) where you also describe what you did and possible problems (and solutions) you discovered.