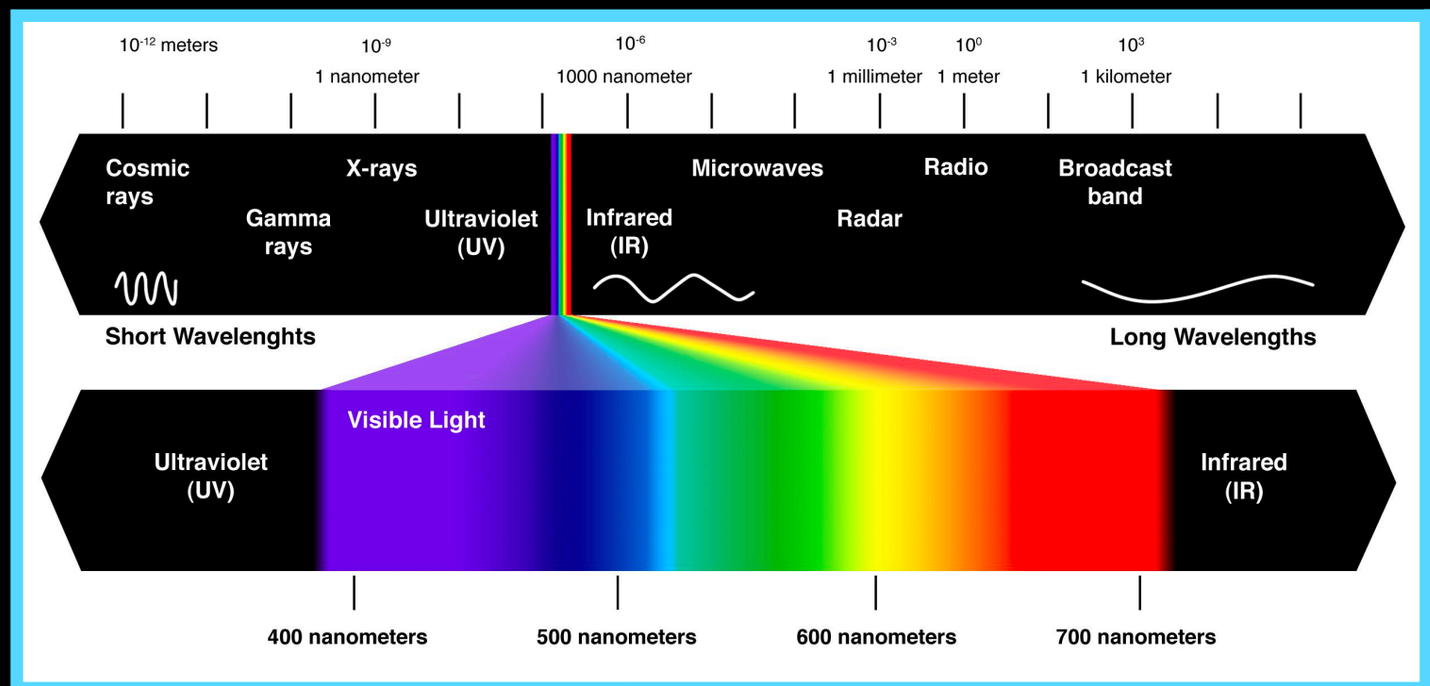
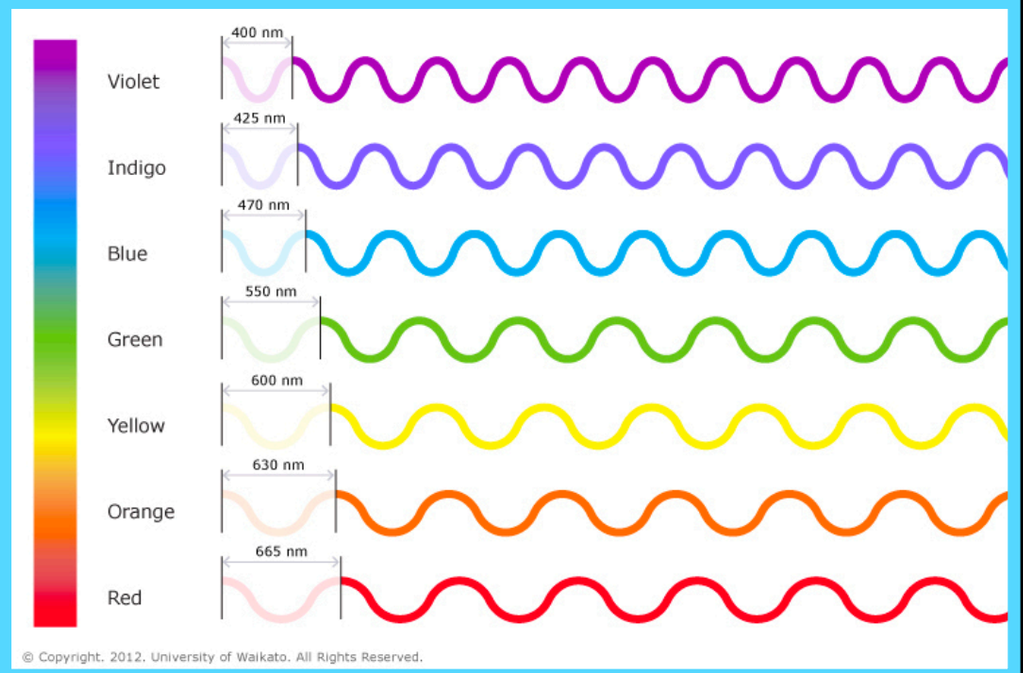
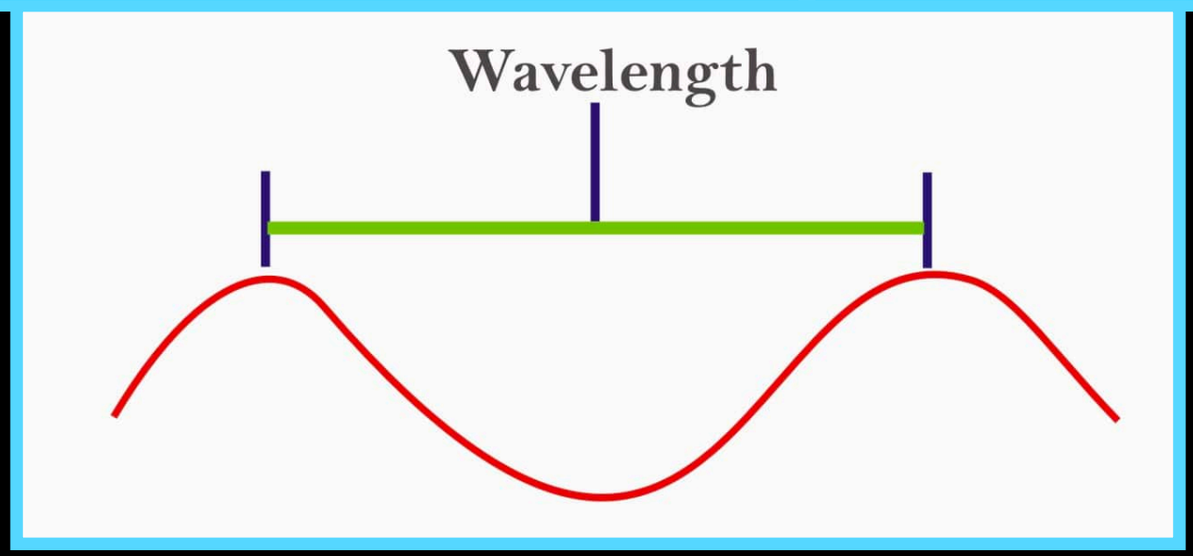
LAB 2

COLOR IMAGING

LIGHT SPECTRUM





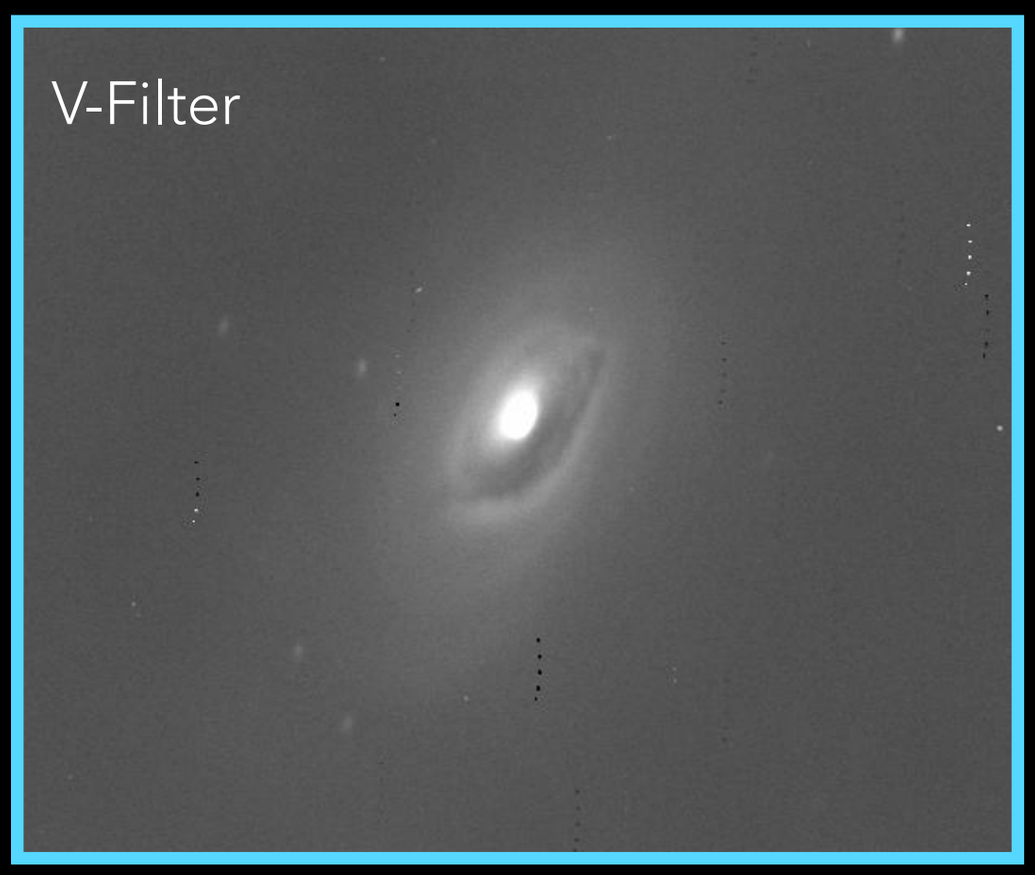


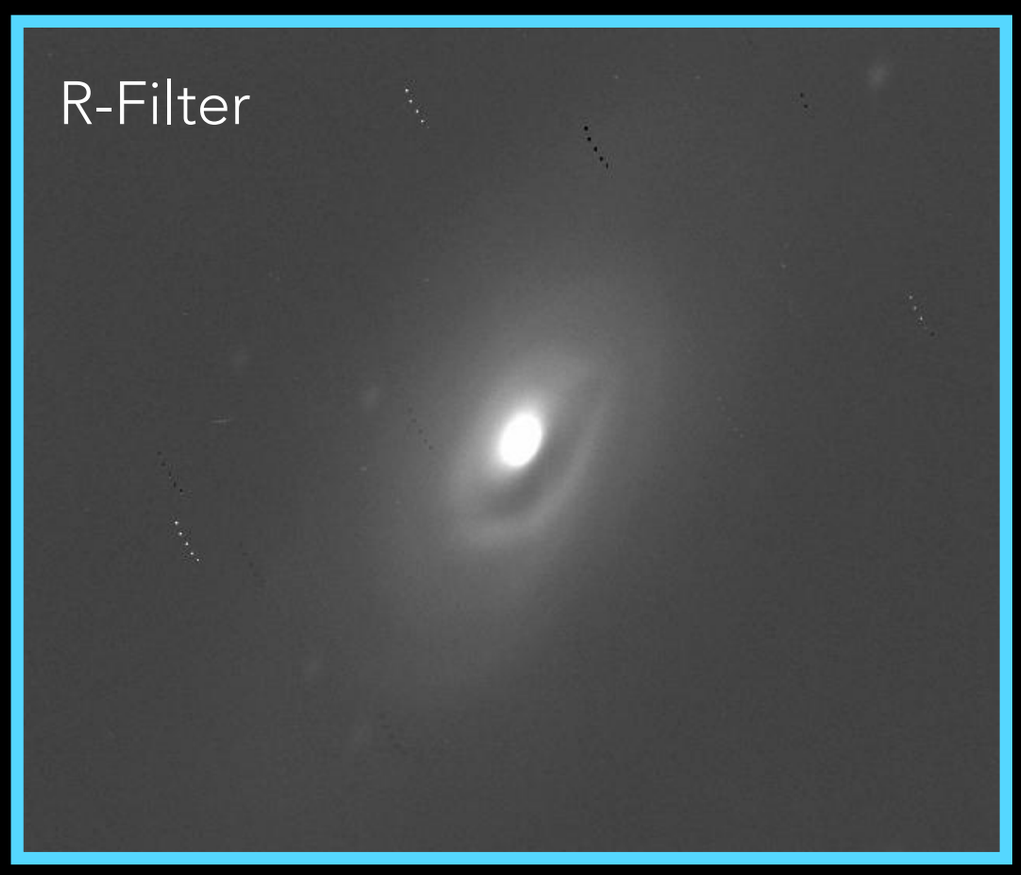
- Visible light is only a small portion of the light spectrum.
- Different colors are associated with different wavelengths.
- Blue light ~ 450nm-490nm, red light ~ 635nm-700nm.

LIGHT SPECTRUM CONT.

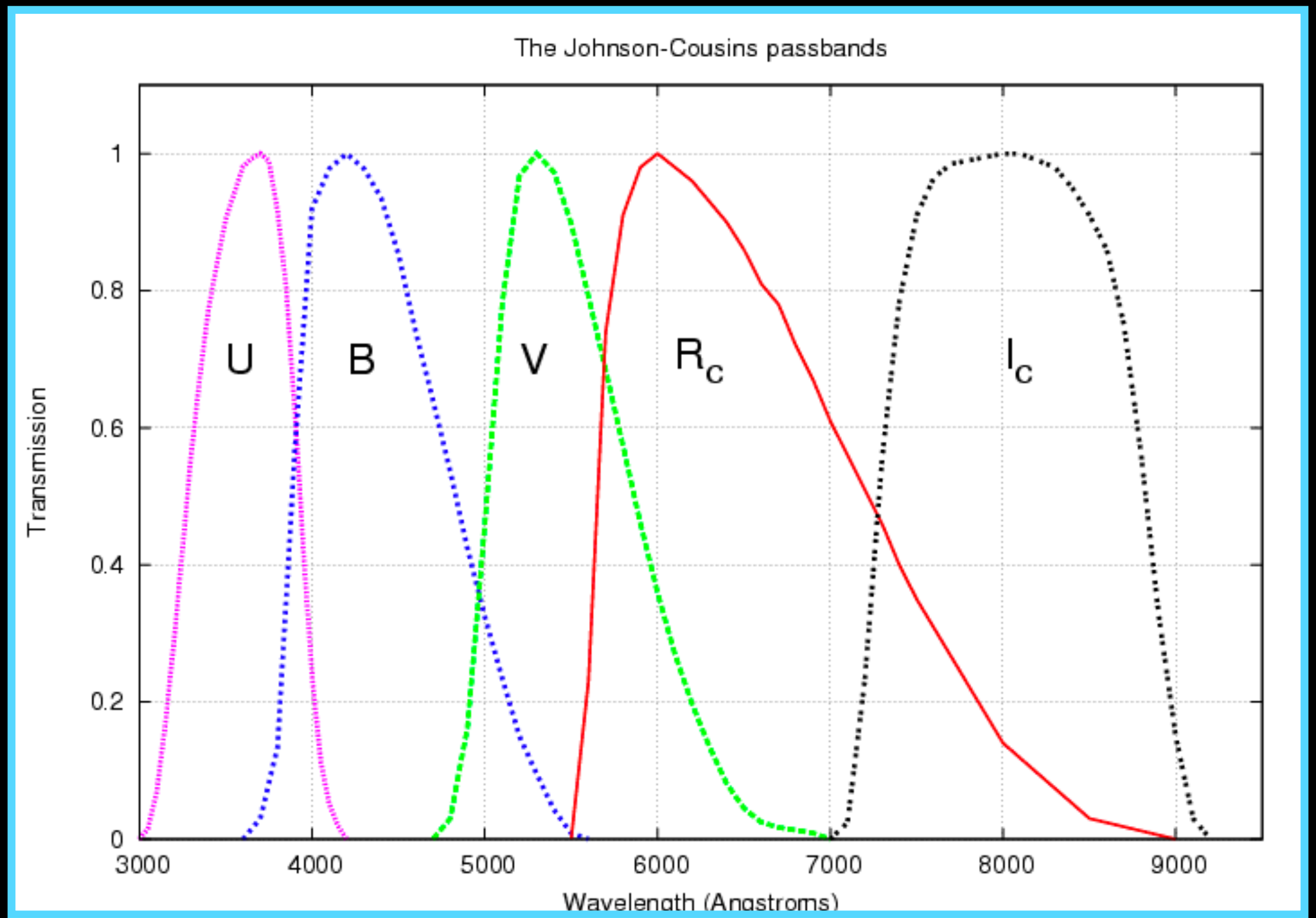
FILTERS

- Telescopes use CCD cameras to take images.
- Different filters are used to look at small ranges of wavelengths.
- Images do not gather information about color, only show the amount of light gathered per pixel through a particular filter.





FILTERS CONT.



DATA DISPLAY

We will be using a program called DS9 to visualize images:

- Log into your computer. Username and password = “labuser”
- Open an XTerm.
- Go to appropriate directory by typing in terminal “cd a200/color”
- Open “test.fits” in ds9 by typing “ds9 test.fits”

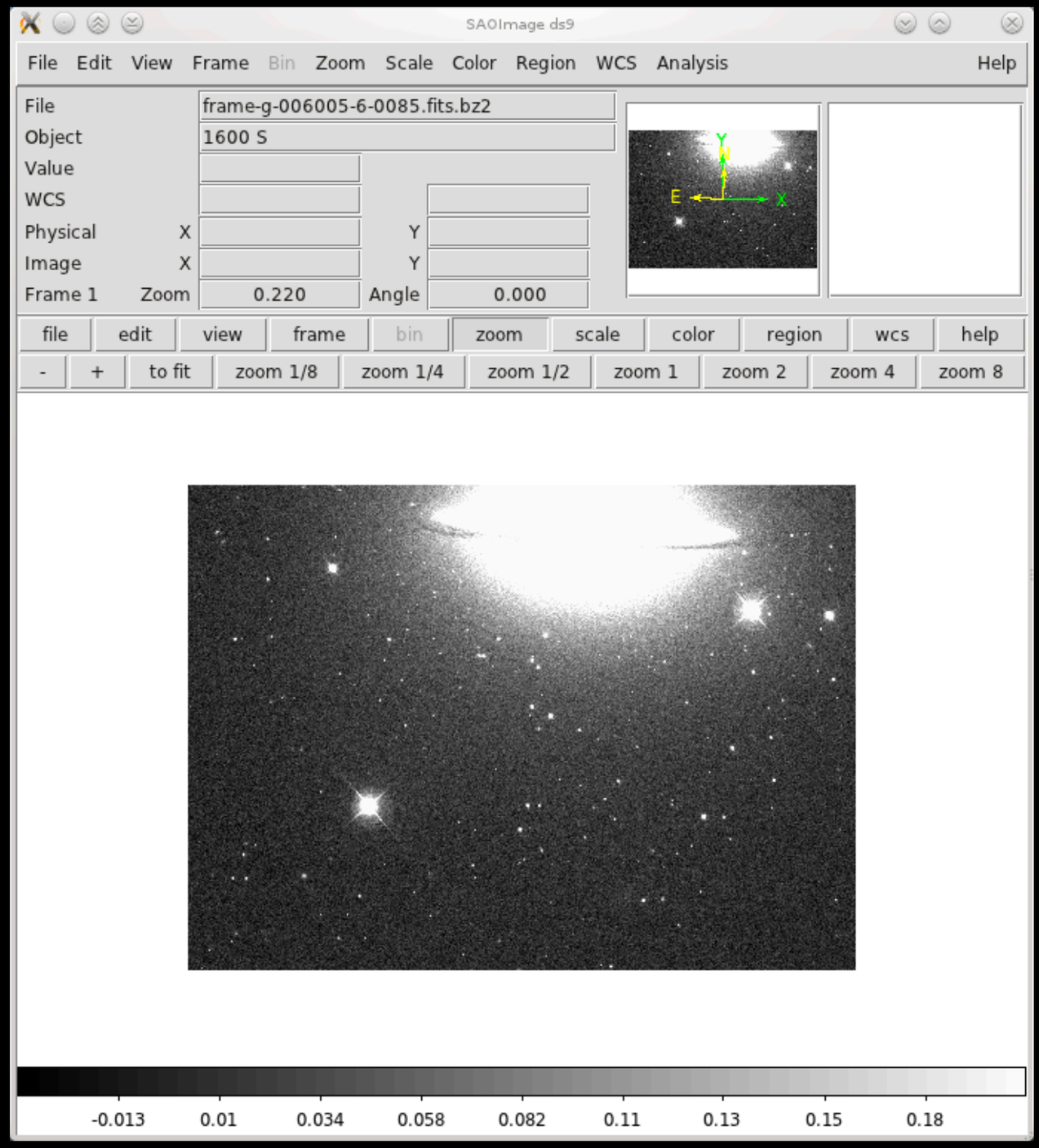
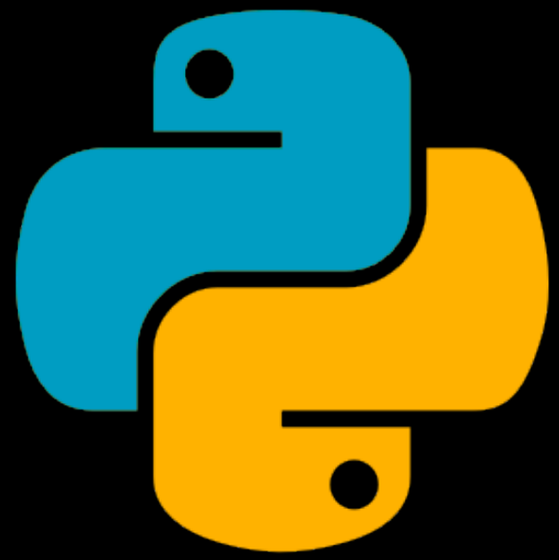


IMAGE PROCESSING IN PYTHON



- Go to https://uvic.syzygy.ca
- Log in with your UVic Username and Password.
- Download Python notebook and img_scale.py, (Instructions were emailed to you last week).
- Go through Python notebook cell by cell and answer questions.