

AS710 Night Lab #2:
Characterizing An Astronomical Camera
Due Monday, October 24th, 2011 by 5 pm

Lab Report Format: Identical to that for Lab #1

In this Project, you will characterize the operating parameters for our two CCD astronomical cameras (the 'main' CCD and the 'finder' CCD) on the 14" telescope on our roof.

You must obtain the necessary images and other data for the CCDs on the 14" telescope.

You should use IDL to perform the data reduction and analyses.

The following should be characterized as to mean values and uncertainties:

Detector readout noise (rms in electrons)

Pixel full-well depth (in electrons)

Conversion gain (electrons/ADU)

You should also include a discussion comparing the properties of our rooftop CCD cameras to similar CCD cameras at use on large research telescopes. Which properties are similar? Which properties are different? Which properties are important to obtaining state-of-the-art astronomical data?