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## ASTR 8060 HOMEWORK 4R

In order to earn back 70% of the points you lost on HW4, you may complete the following tasks. This is due with HW5, but since it is relevant for HW5, I would recommend doing it sooner.

Your submission should be a Jupyter notebook that executes the tasks below for at least the following frames: biases, flats in all bands, darks, science frames for PG1633+099 and NGC6823.

- 1. Characterize and subtract the overscan.
- 2. Trim the frames so that only the 2048x2048 data section remains.
- 3. Create a master bias.
- 4. Subtract the master bias from all frames.
- 5. Save the frames with their original filename, plus the "otz" flags to indicate your overscan, trim, and bias (aka zero) corrections.