

Michael's projects

1/31/14:

Notes from meeting with Prof Stubbs:

1. Figure out what optical passband to measure in
 - Camera is different than LSST
 - Can insert filter behind lens to change passband
2. Look into fast median code
 - Perhaps vectorize such that no loop required (requires building the indexing vector, but can just make image into one long array)
3. Pixel x-y -> RA/Dec
 - Convert brightness into database
4. Filtering
 - Figure out how to make output look like LSST filters
 - Need to make decision about modifying camera filter
5. Can we improve the housing / enclosure?
 - Can we make case with power plug / ethernet?
 - Curved optical port like scuba divers
6. Calibration
 - In terms of when the camera is rotated
 - Wavelength dependent calibration
7. New mac mini
 - Install all relevant software
8. Need to purchase AC adapter for Canon

2/2/2014:

[Median Filter Analysis](#)

9. Work on real-time gray-scale image creation.

2/24/2014:

1. smaller jeweler phillips and flatheads

3/4/2014:

[Camera Calibration](#)

[Camera Theta Calibration](#)

3/12/2014:

[Light Source Stability](#)

3/17/2014:

[Near Source Theta Calibration](#)

[Spectrometer](#)

[Far Source Calibration](#)

3/25/2014 and 4/2/2014:

[Calibration in Dark Room](#)

4/7/2014:

Building source extractor on NCSA:

Install FFTW with single precision (make; make install):

```
./configure --prefix=/home/coughlin/fftw-3.3.4/ --enable-single --enable-threads
```

Then install source extractor:

```
./configure --prefix=/home/coughlin/sextactor-2.19.5/ --with-fftw-libdir=/home/coughlin/fftw-3.3.4/lib/ --with-fftw-incdir=/home/coughlin/fftw-3.3.4/include/
```

4/8/2014:

[Spectrometer Dark Noise](#)

