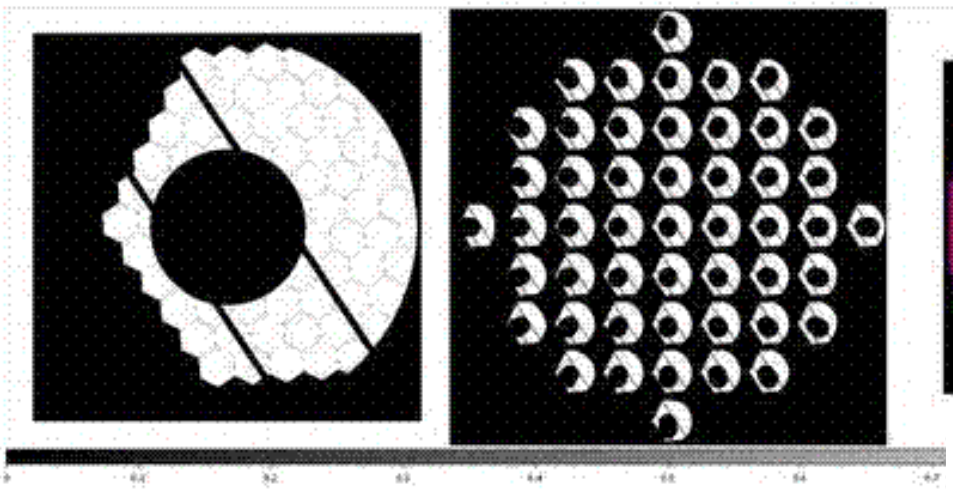
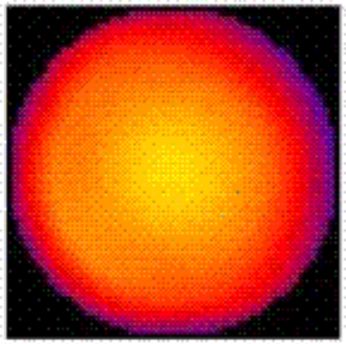
SALT/RSS Flat Fields

RSS Imaging FlatField Analysis



Pupil Map at center of field

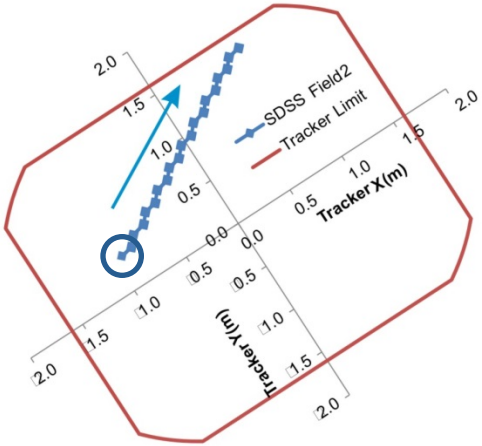
Field Map of Pupil variation



Field Map of Illumination ("flatfield")

Time = variation over track

- Developing model of RSS imaging flatfield over track
- Test track from 20130428 observation
- Compare with observed flat from sky and SDSS photometry

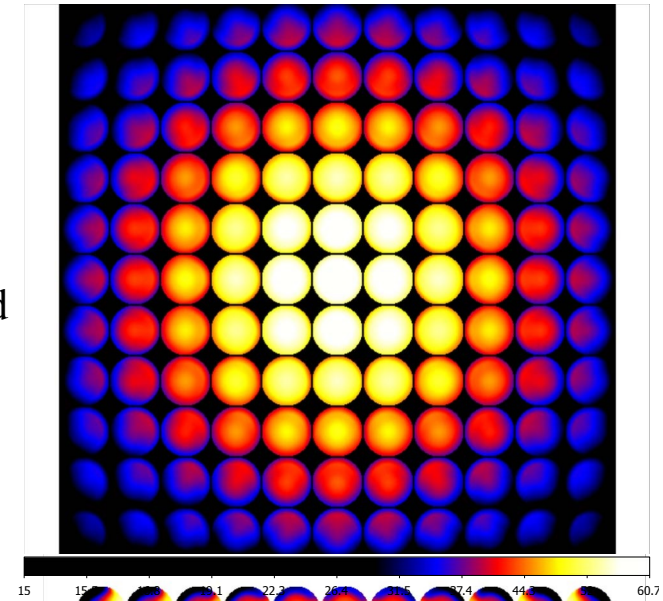


Tracker Position

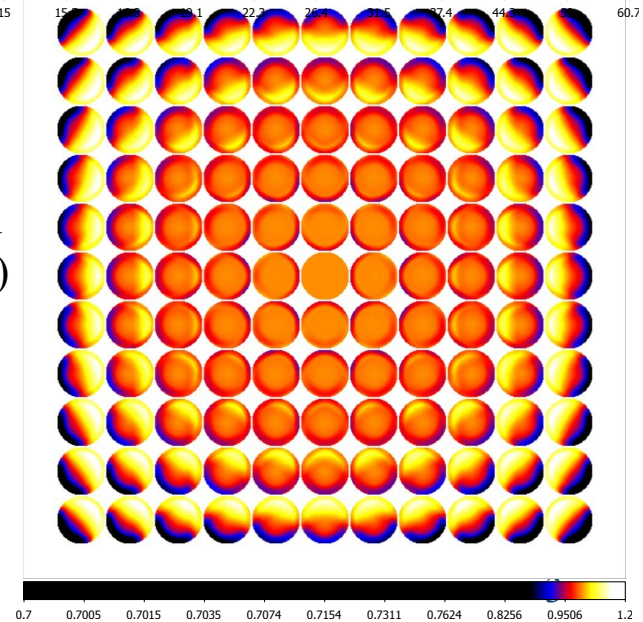
Flatfielding in SALT/RSS pipeline

- A plan for pipeline: Store model grid of flatfields in track space:
- Science data: with increasing accuracy:
  - interpolate from model grid
  - update interpolated model with high-frequency variations from lamp flat
  - update actual sky flat at some track position with interpolated model of track variation
- For future
  - measure pupil/field dependence of RSS gratings, polarizing beamsplitter
  - calculate grid of spectral and polarimetric flats in track space

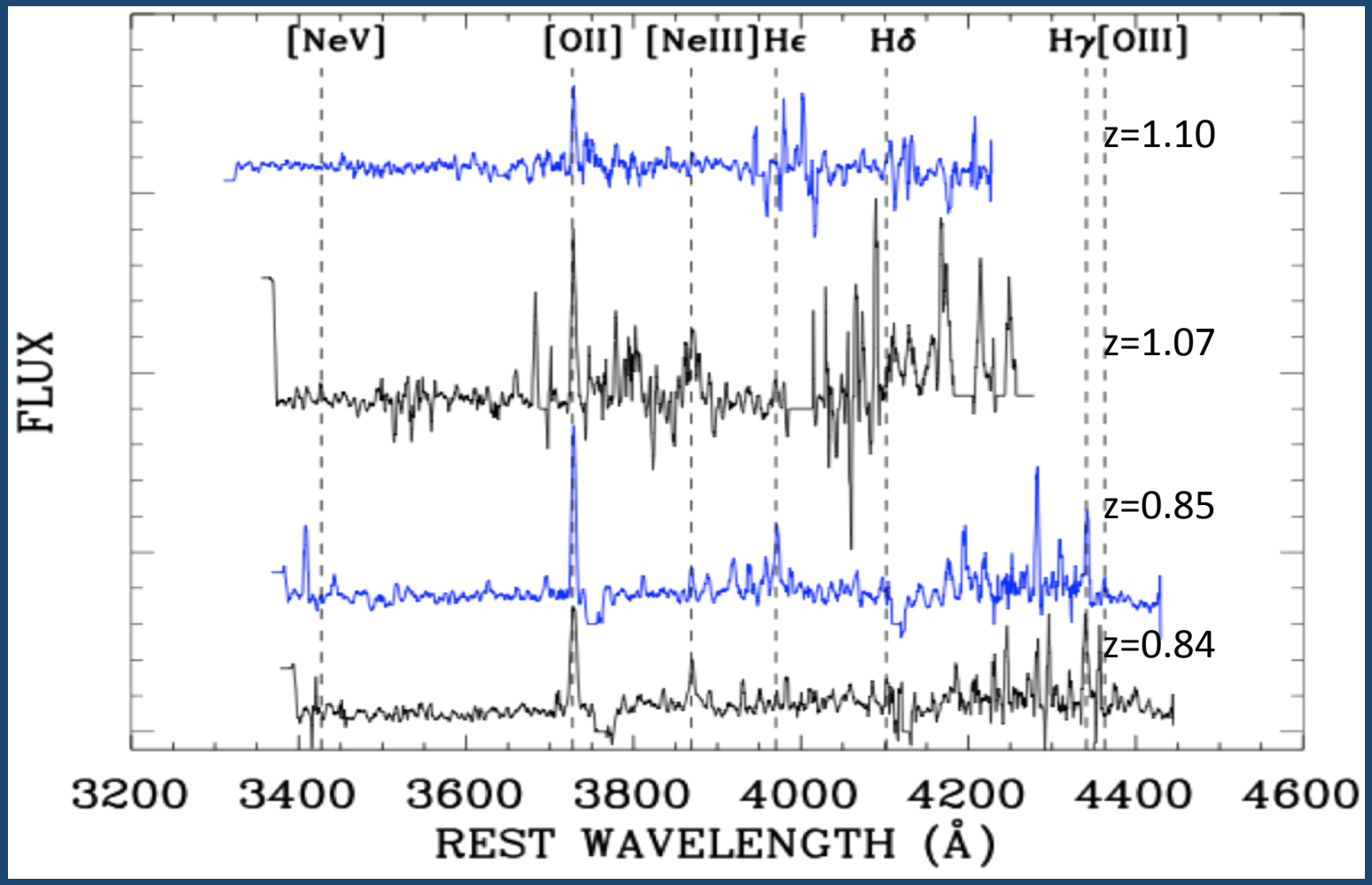
Track Map of Flatfield (so far)

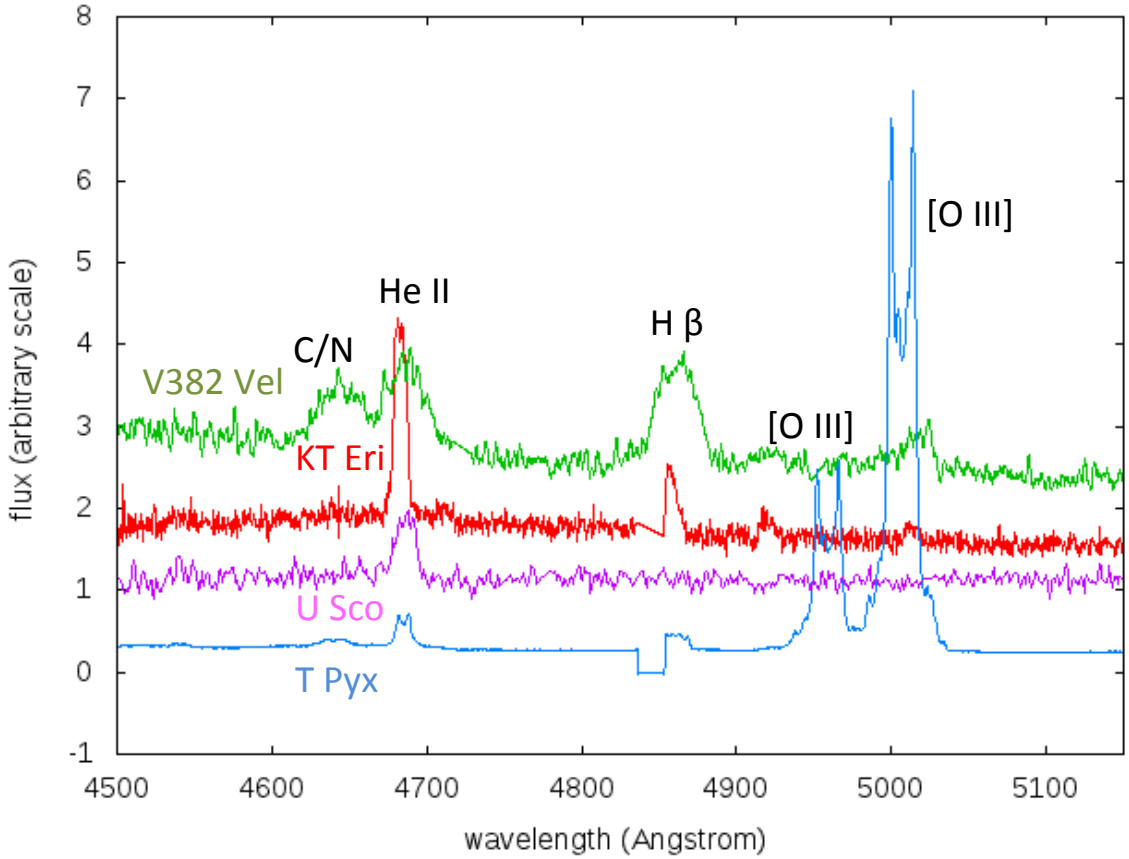


log (Flatfield variation) from tracker center



Spectroscopic follow-up of UV-selected Lyα emitters





These luminous novae were all supersoft X-ray sources. T Pyx, U Sco, KT Eri were observed in 1.5-3 years

T Pyx results published by Tofflemire et al. 2013, submitted