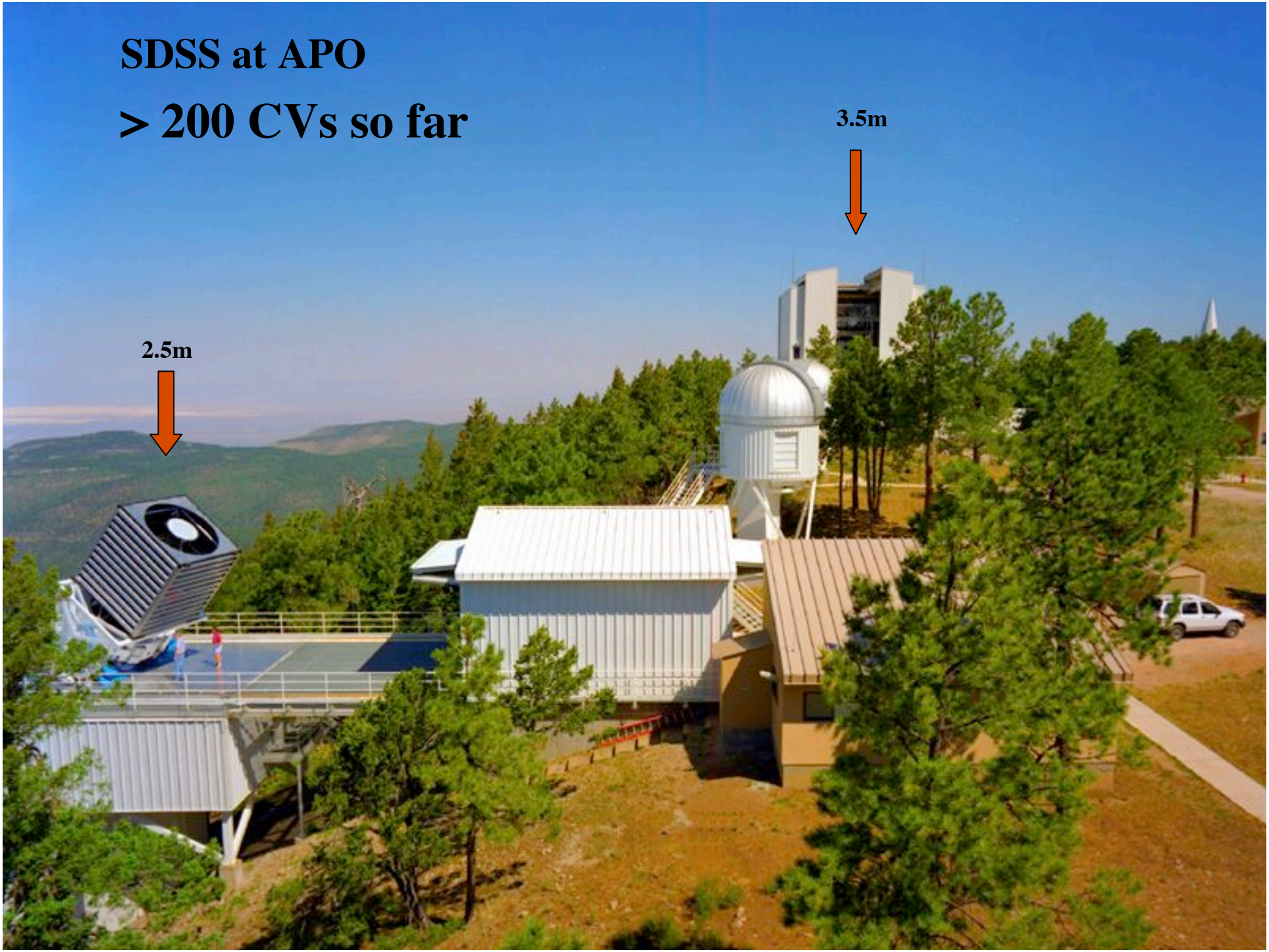
SDSS & GALEX databases

SDSS: http://www.sdss.org SkyServer

GALEX: http://galex.stsci.edu/GR4/ GALEXView

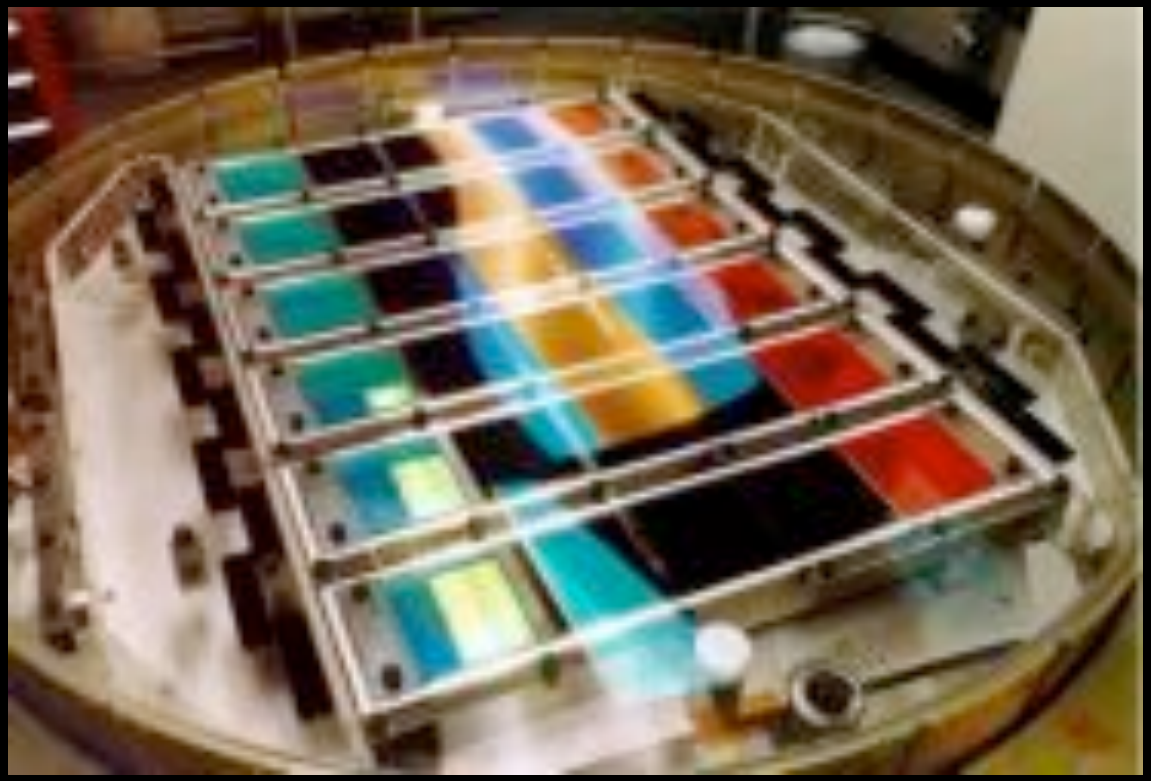

SDSS at APO
> 200 CVs so far
3.5m
2.5m

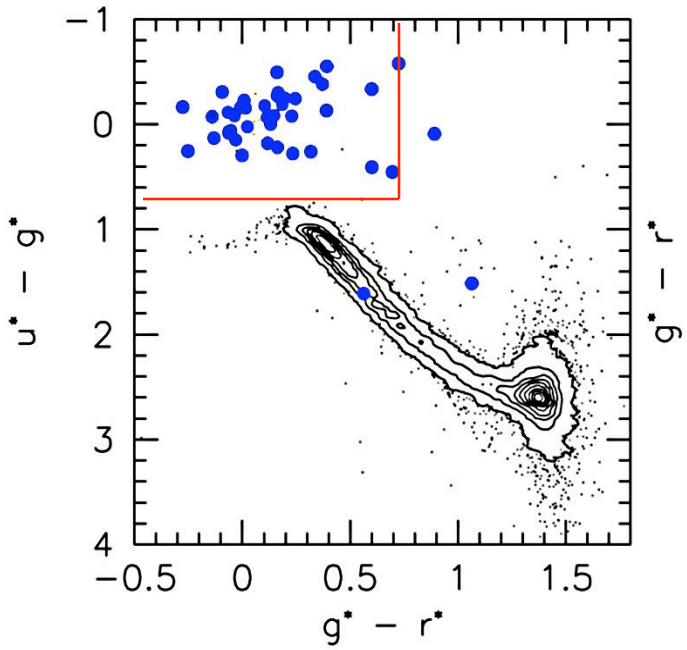
SDSS camera:

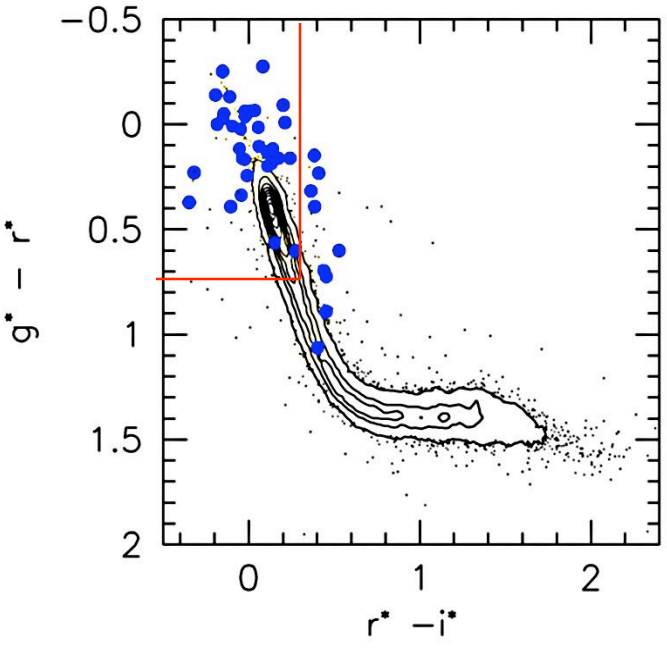
30 CCDs

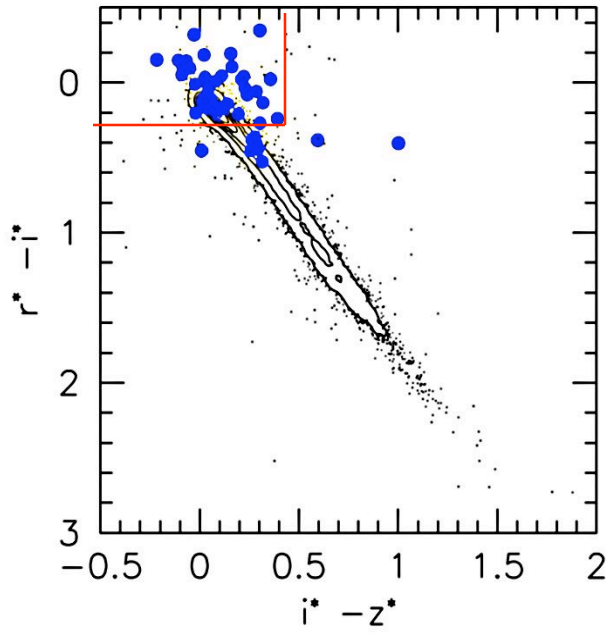
5 filters:

u,g,r,i,z







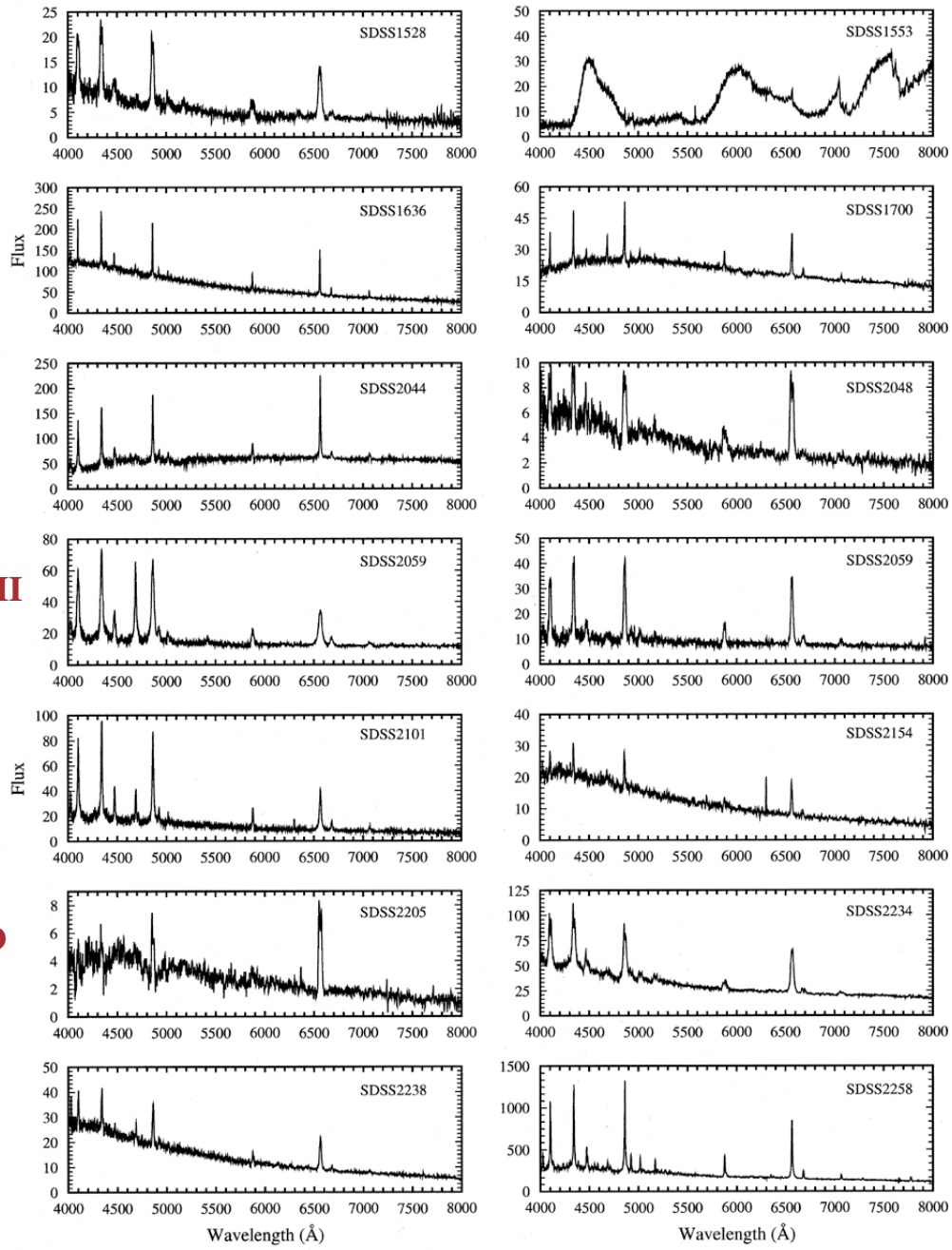


QSO rejects
Serendip
Blue Cat_Var

SDSS fiber spectrograph

Typical CV spectra in DR1

CVs in DR1 in Szkody et al. 2003, AJ, 126, 1499



Cyclotron humps

Polar

Strong HeII Polar

Strong continuum

Shows WD ZZ Cet

Strong lines

Possibilities with SkyServer:

- have fun with scrolling sky
- find mags of star + field objects
- find what field stars are [spectra]
- make a finding chart
- compare psf mags, fiber mags and DSS, GSC to determine variability

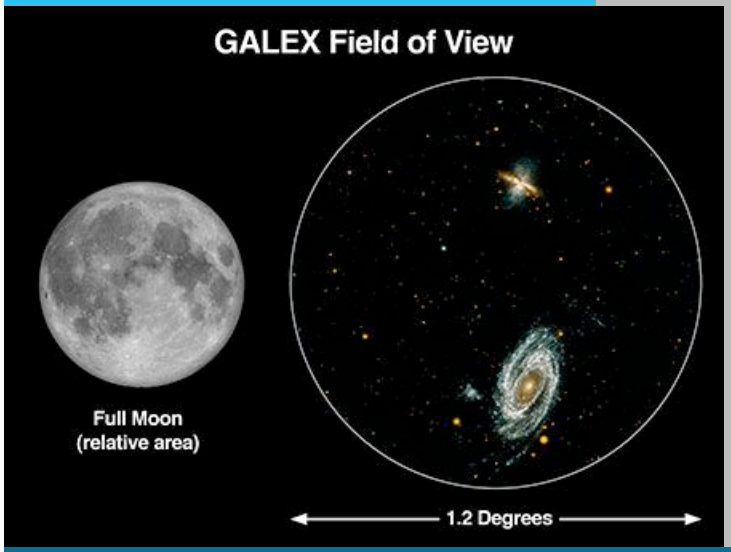
Available Data:

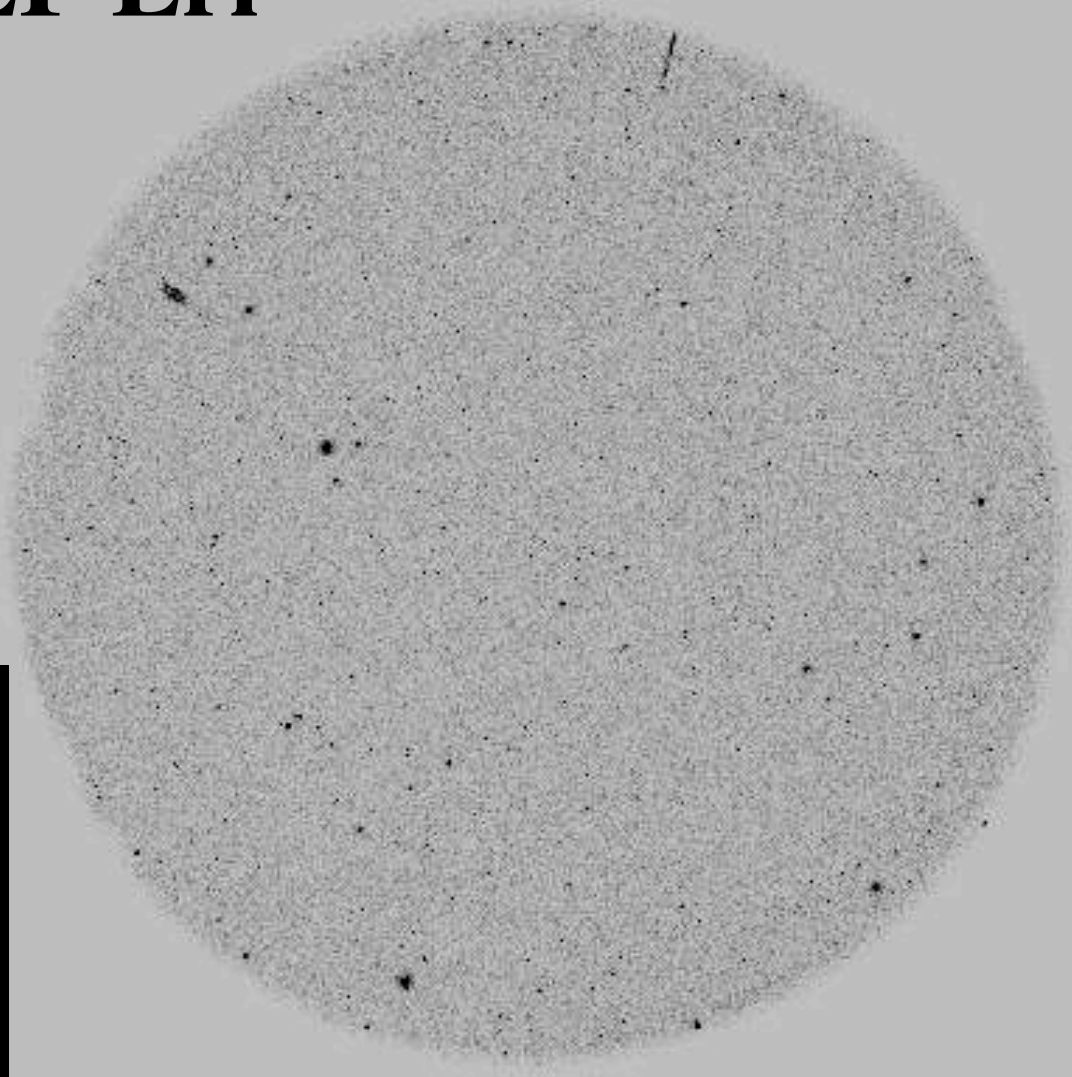
- **DR7: 8420 sq deg imaging, 230 million objects; 1656 spectral plates, 640 spectra on each plate**
- **Stripe 82: 2.5 deg on CE from 22h24m to 4h08m RA; imaged Sept-Nov in 2005-2007, some back to 2002, 5-60 measurements with median of 10 observations for each object**

EF Eri

GALEX
NUV
(1750-2800A)

19.7in telescope with 1.2 deg diam FOV

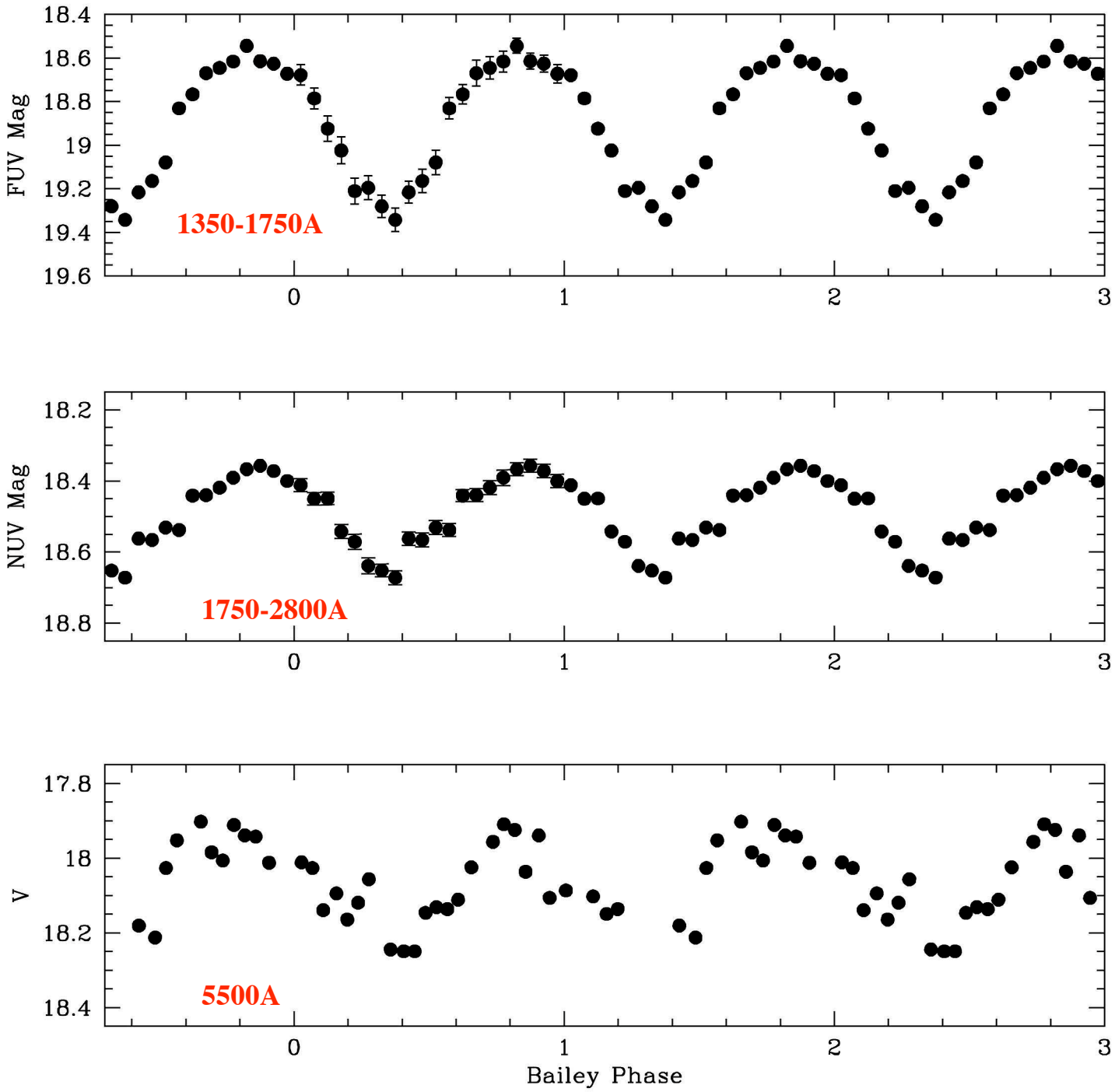




EF Eri

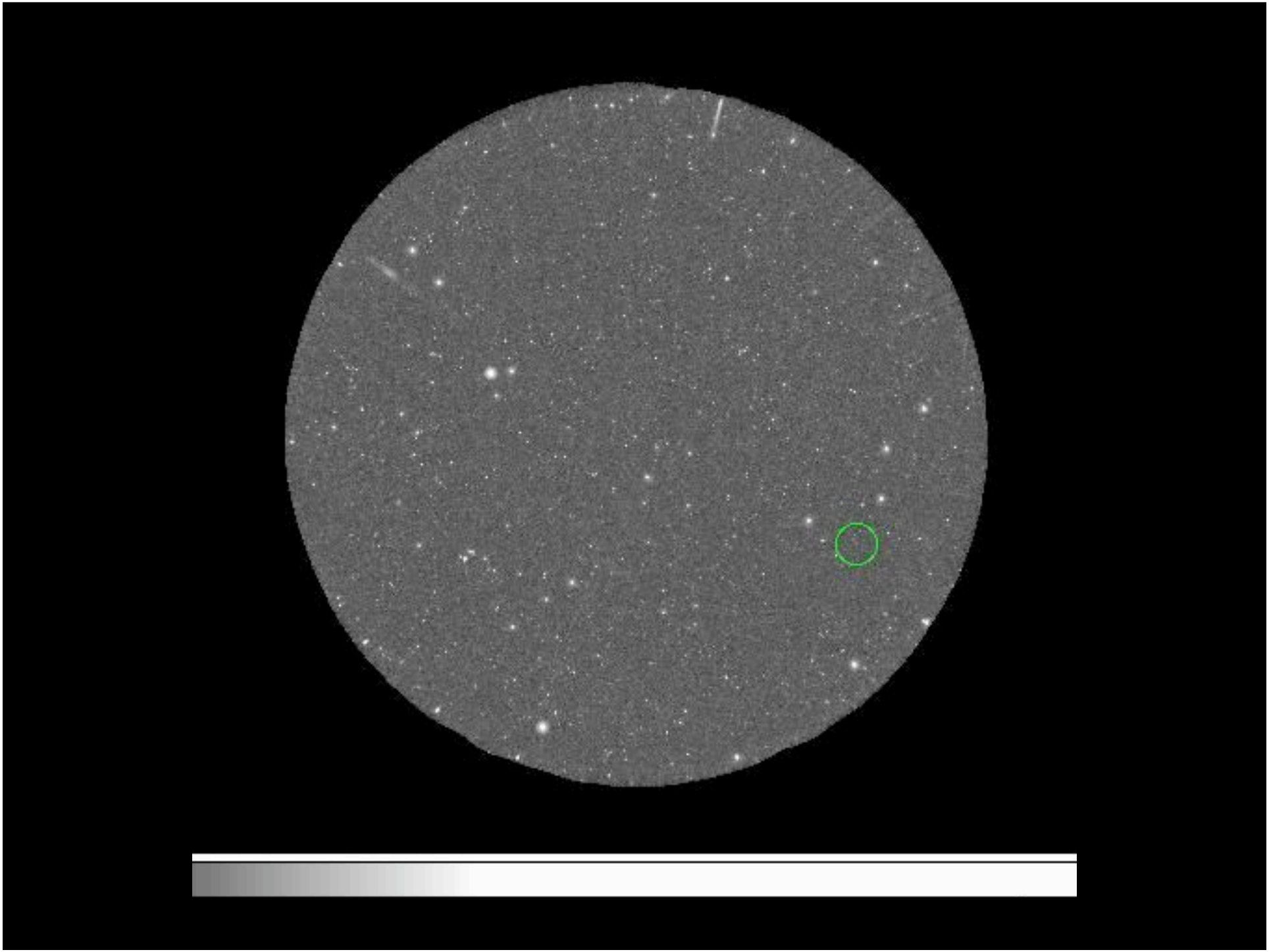
GALEX

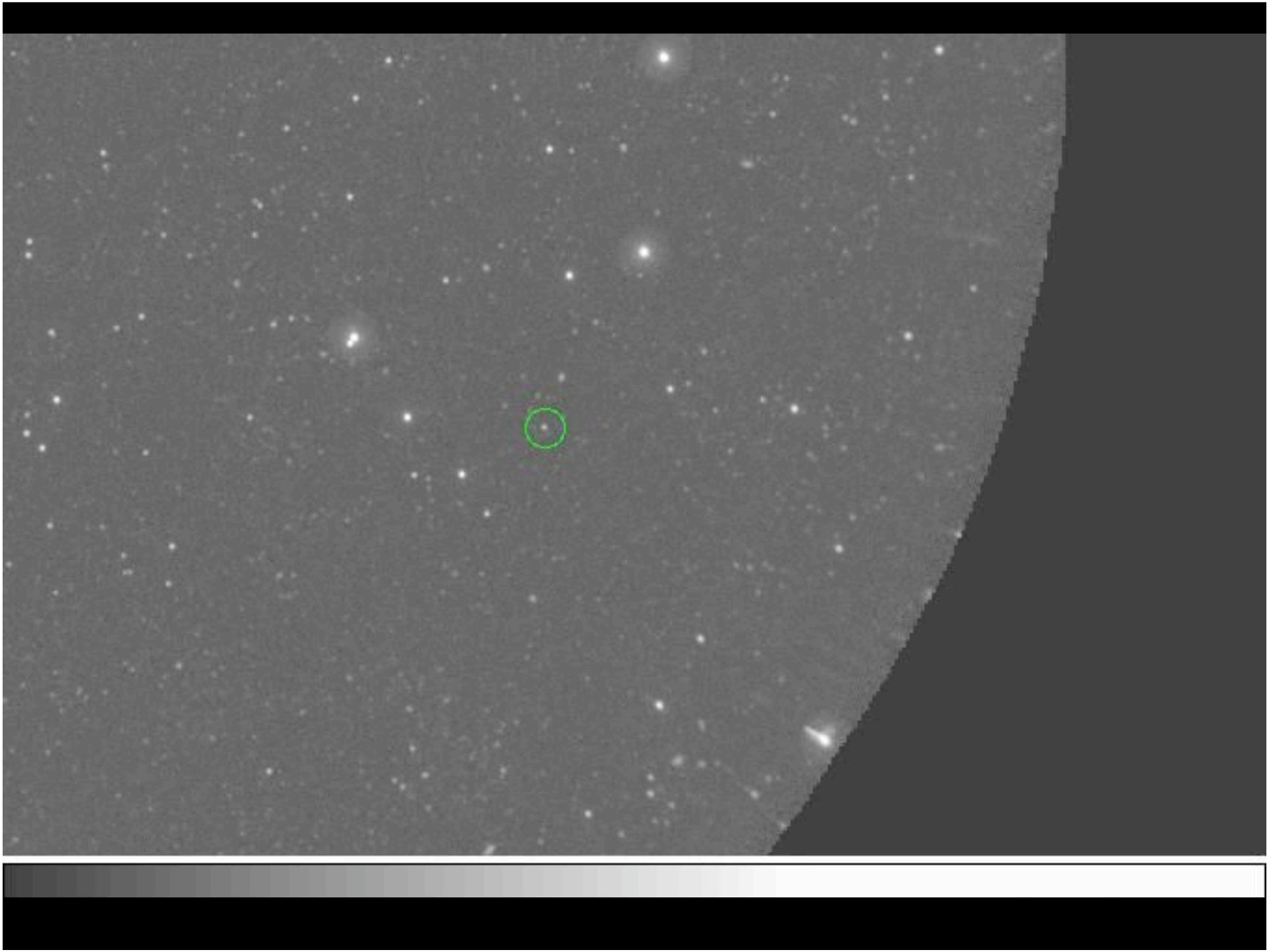
Szkody, Harrison, Plotkin, Howell, Seibert, Bianchi, Ap, 646, L147, 2006

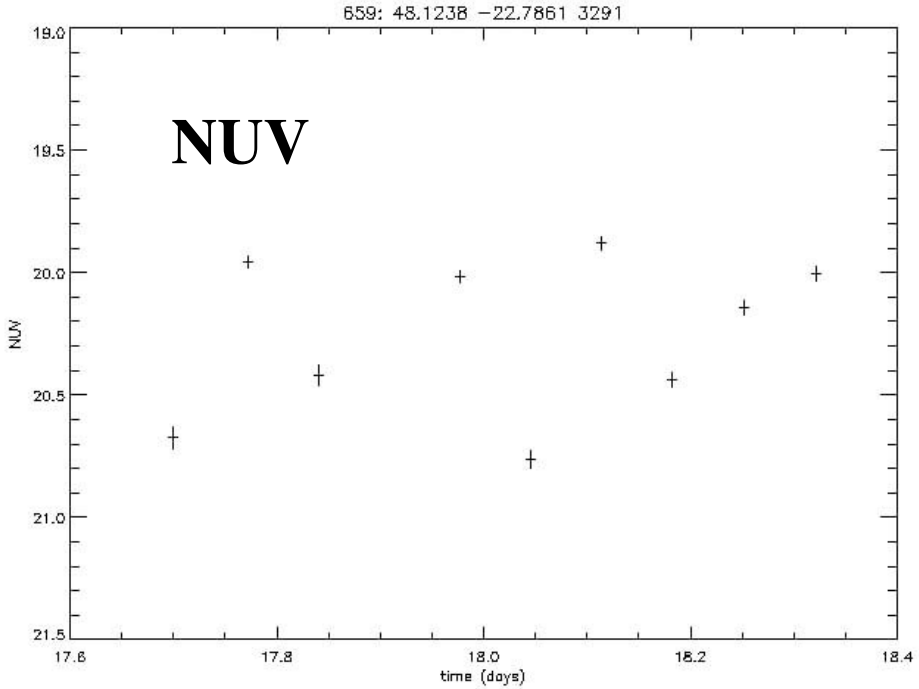


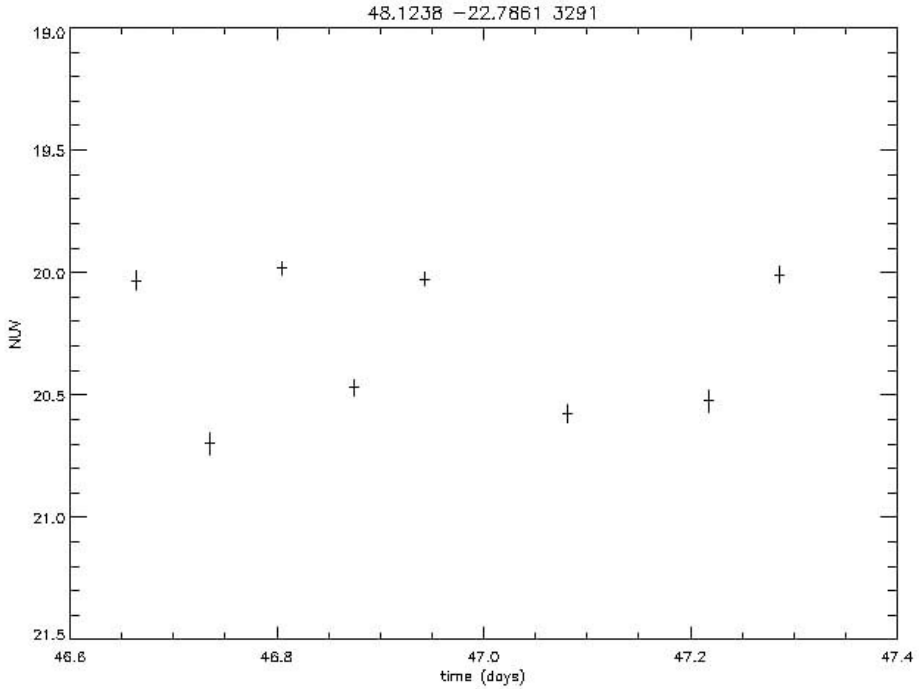
Possibilities with GALEX

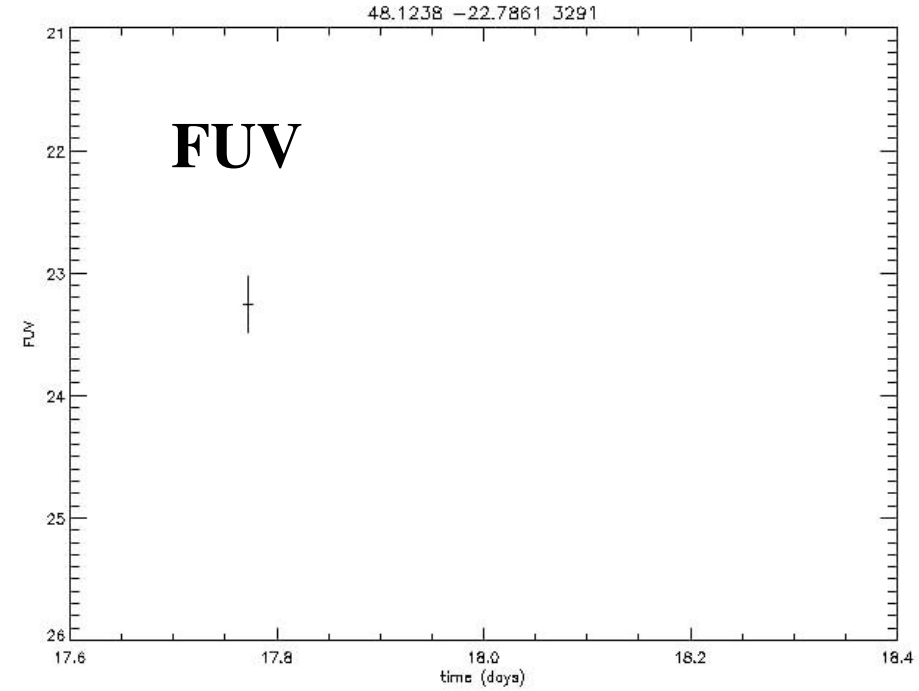
- **Find variables in wide field repeat obs**
- **identify their type**
- **Find UV brightness of your objects**

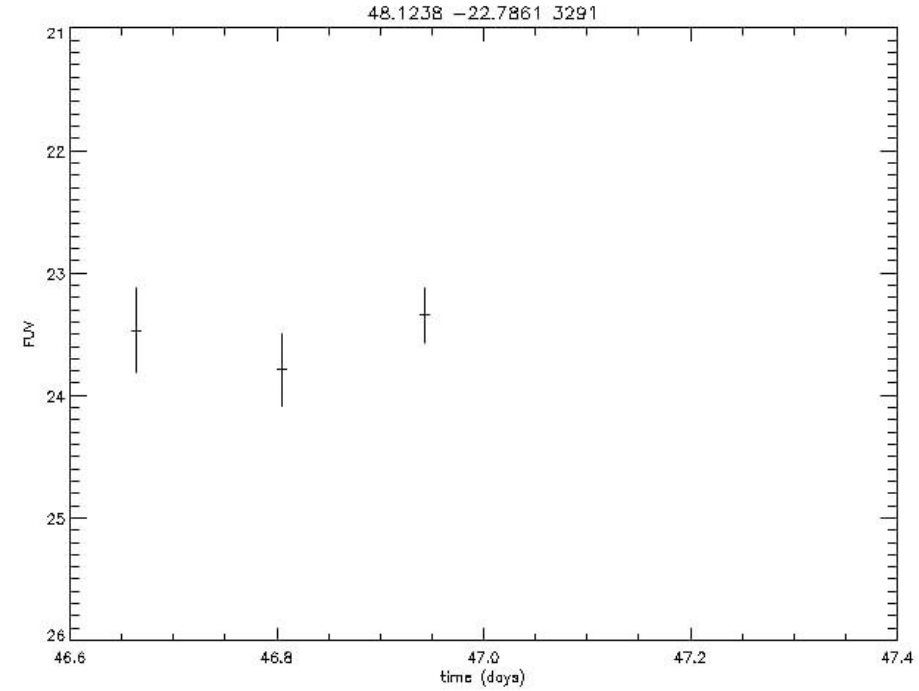


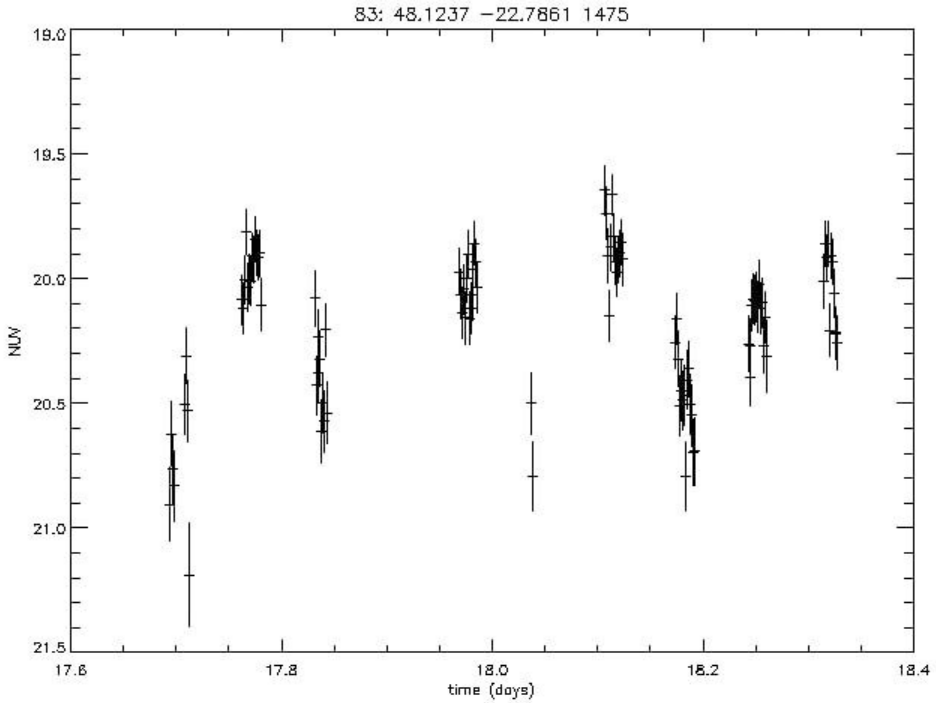


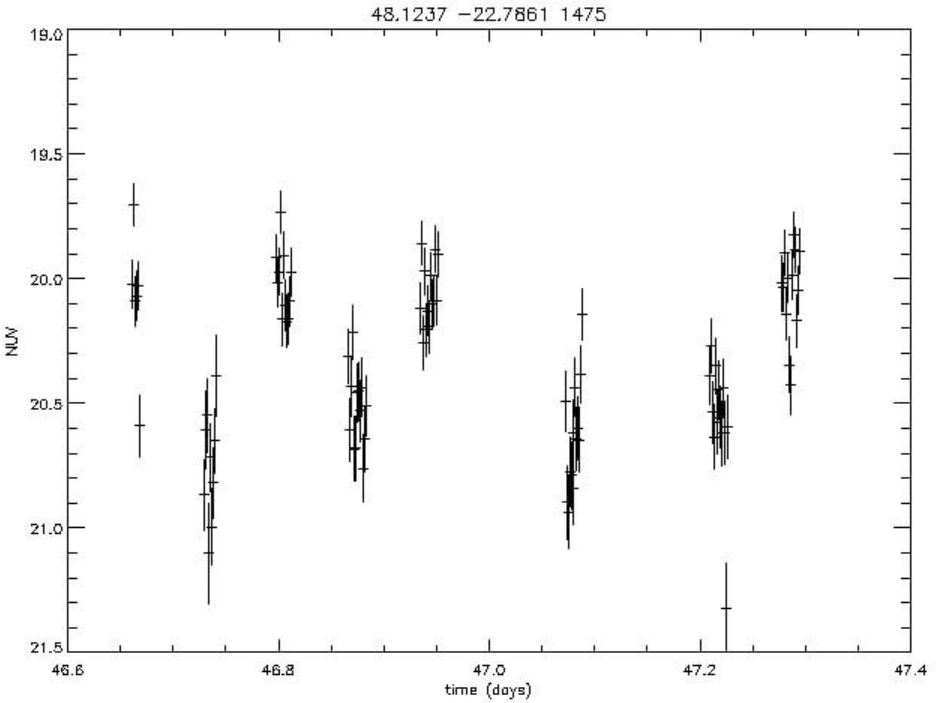

659: 48.1238 −22.7861 3291
NUV
19.0
19.5
20.0
20.5
21.0
21.5
17.6
17.8
18.0
18.2
18.4
time (days)

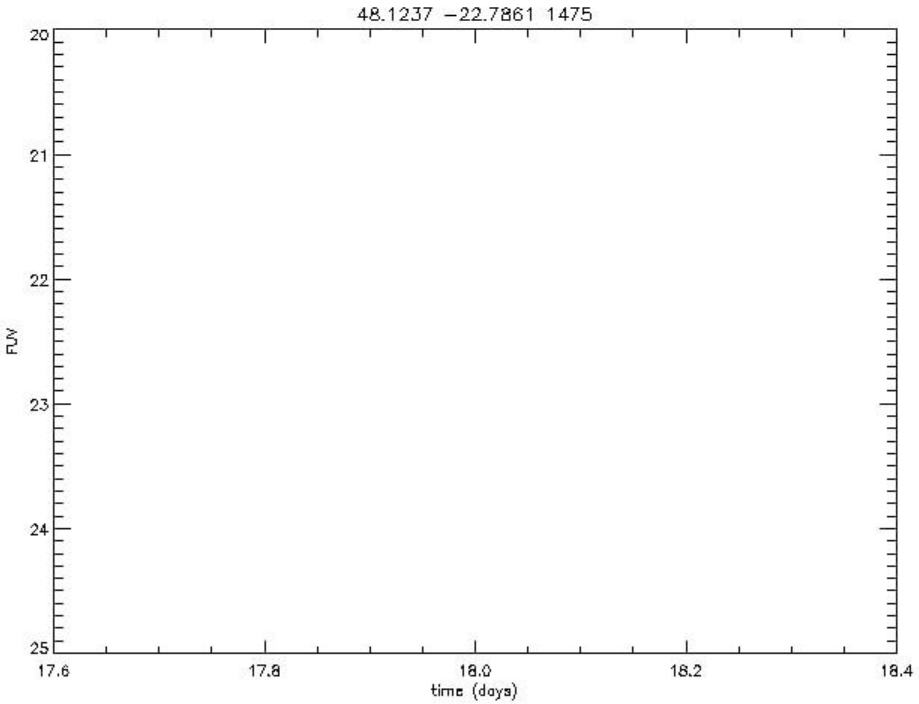

48.1238 −22.7861 3291
NUV
19.0
19.5
20.0
20.5
21.0
21.5
46.6
46.8
47.0
47.2
47.4
time (days)

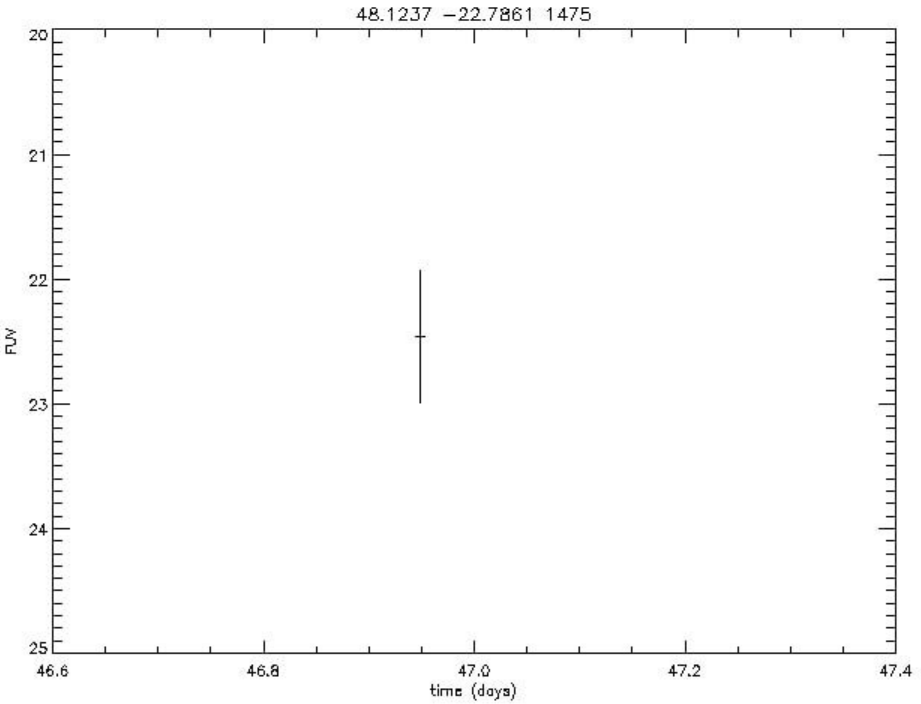

48.1238 −22.7861 3291
FUV
21
22
23
24
25
26
17.6
17.8
18.0
18.2
18.4
time (days)

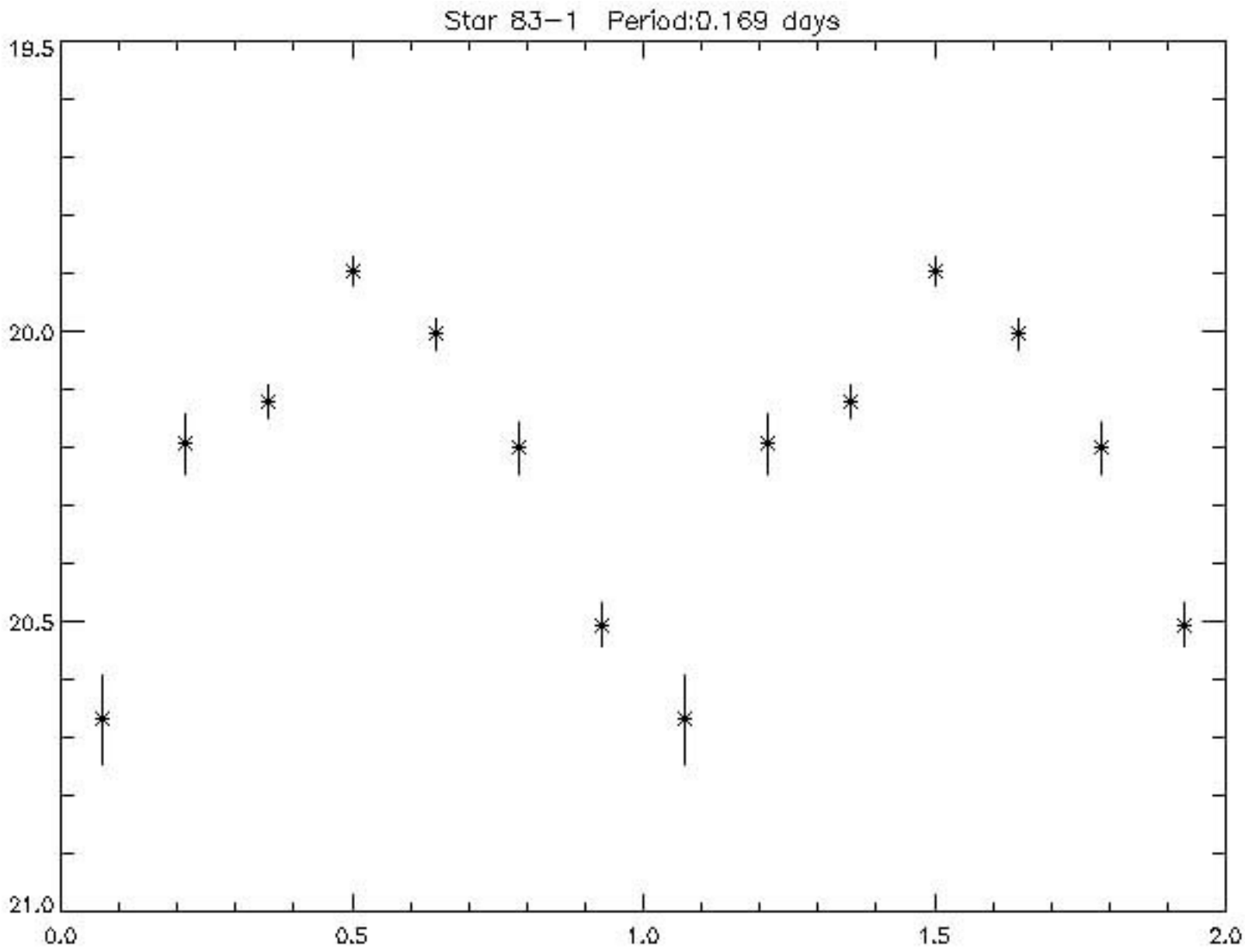

48.1238 −22.7861 3291
FUV
21
22
23
24
25
26
46.6
46.8
47.0
47.2
47.4
time (days)


83: 48.1237 −22.7861 1475
NUV
time (days)


48.1237 −22.7861 1475
NUV
time (days)


48.1237 −22.7861 1475
FUV
time (days)


48.1237 −22.7861 1475
FUV
time (days)


Star 83-1 Period:0.169 days
19.5
20.0
20.5
21.0
0.0
0.5
1.0
1.5
2.0

SDSS SkyServer things to look at:

- Tools (Scrolling sky)
- Visual Tools (Finding chart, Navigate, Explore)
- Help (Cooking with Sloan - Stars, SQL Tutorial)