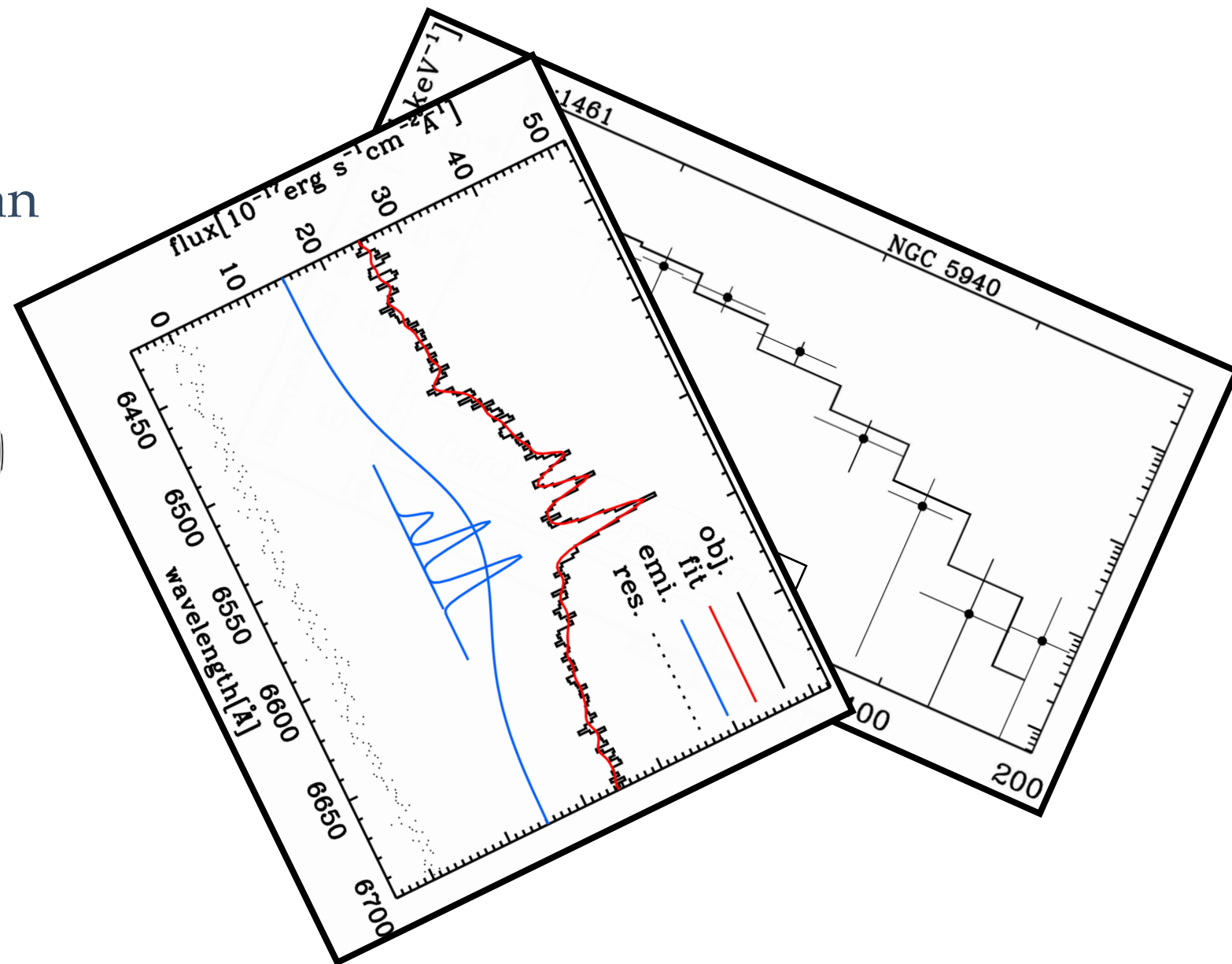


Spectral line measurements of BASS DR2:

Kyuseok Oh^{1,2}

¹ Kyoto University, Japan

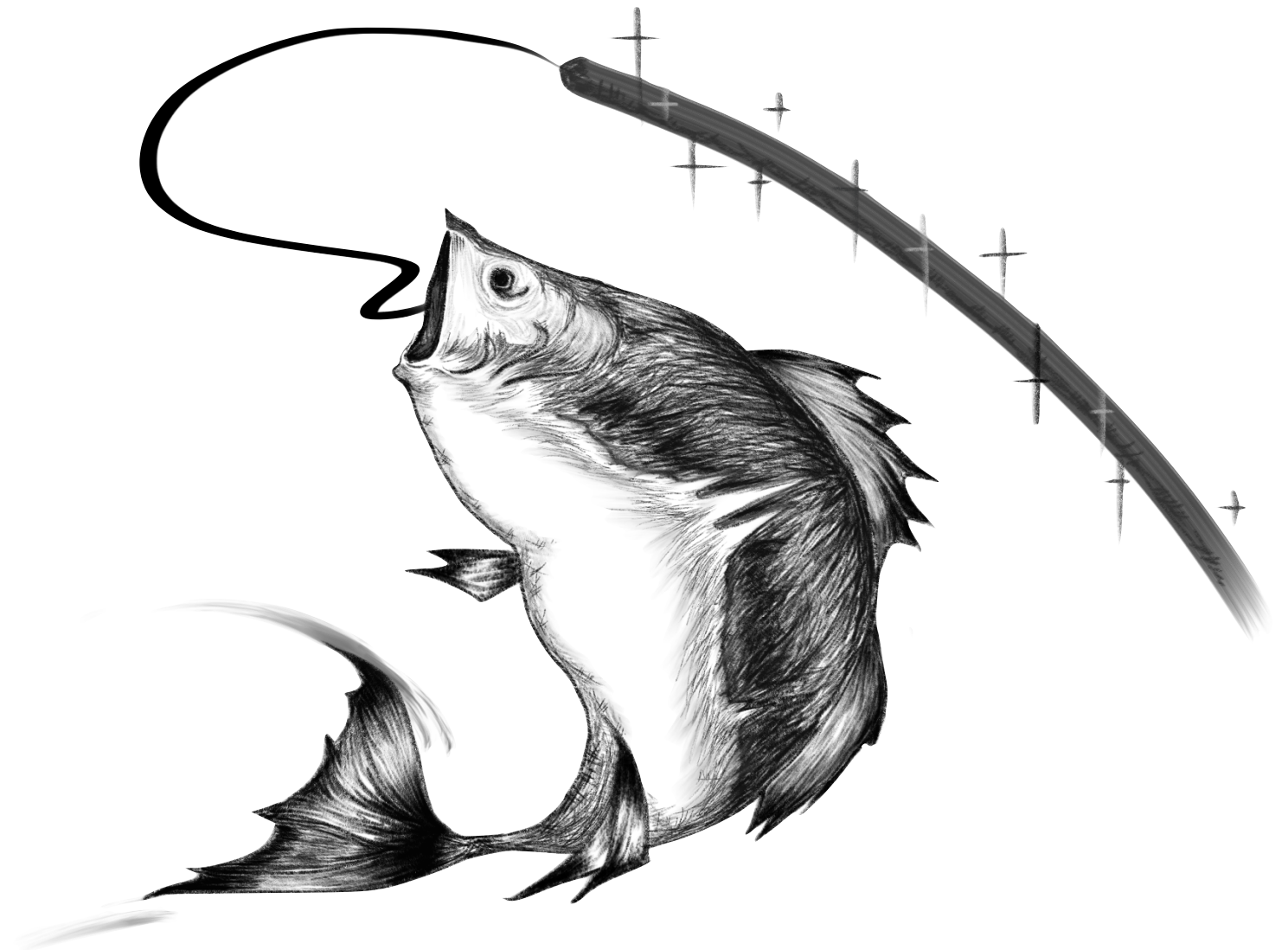
² JSPS fellow



Spectral line measurements of BASS DR2:

Narrow emission-lines

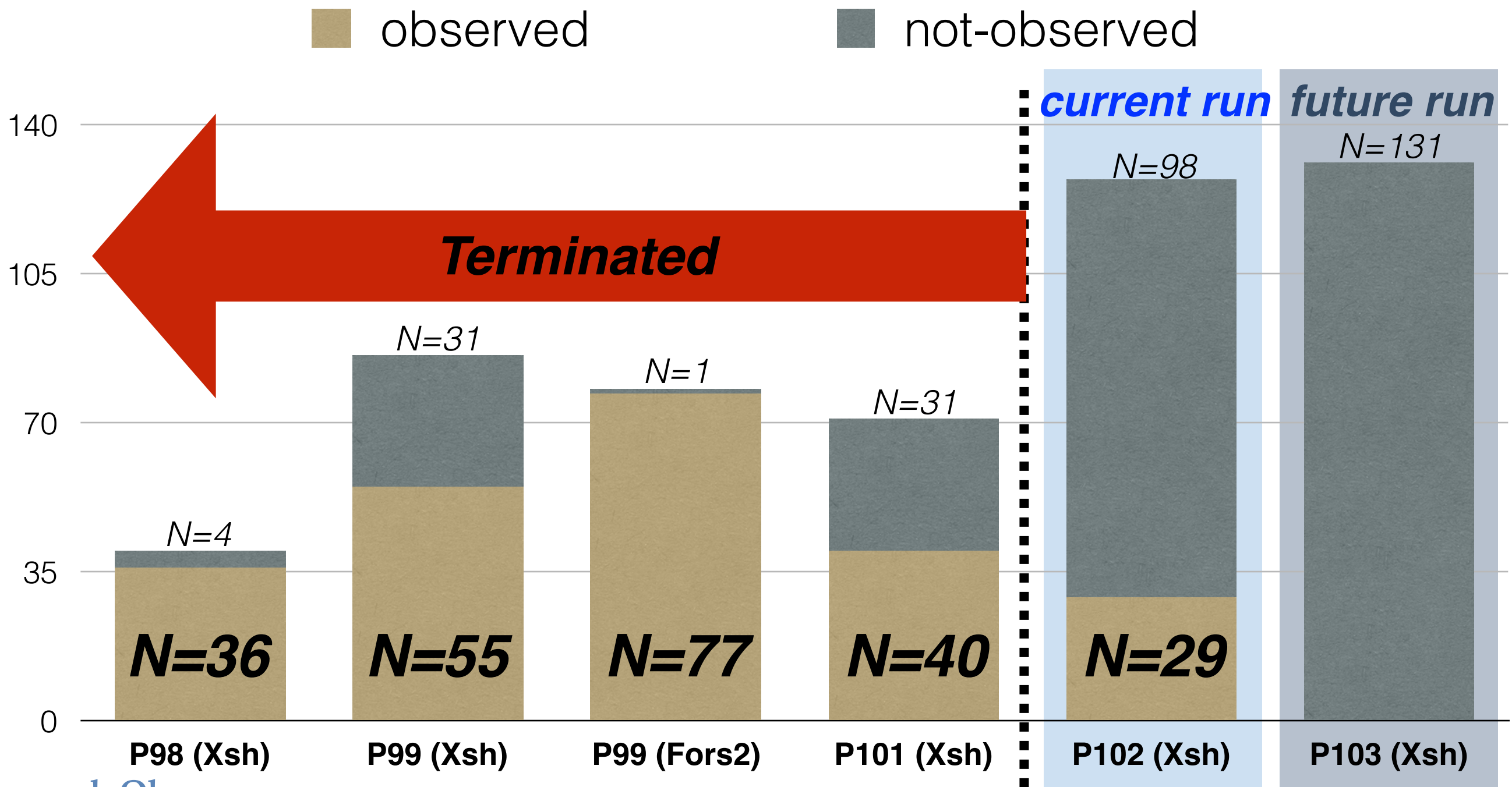
1. Spectral sources
2. Status
3. Todo



Spectral sources (Sy1.8 - Sy2, LINER)

1. ESO VLT Xshooter programs (N=95)
2. SOAR (N=5)
3. du Pont B&C (N=50)
4. Palomar (N= 153)
5. SDSS DR15 (N=68)

1. ESO VLT programs (N shown below: all sources regardless of spec.type)
: bad weather filler programs (seeing < 2" or 4")



Spectral sources (Sy1.8 - Sy2, LINER, $N=284$) *unique sources*

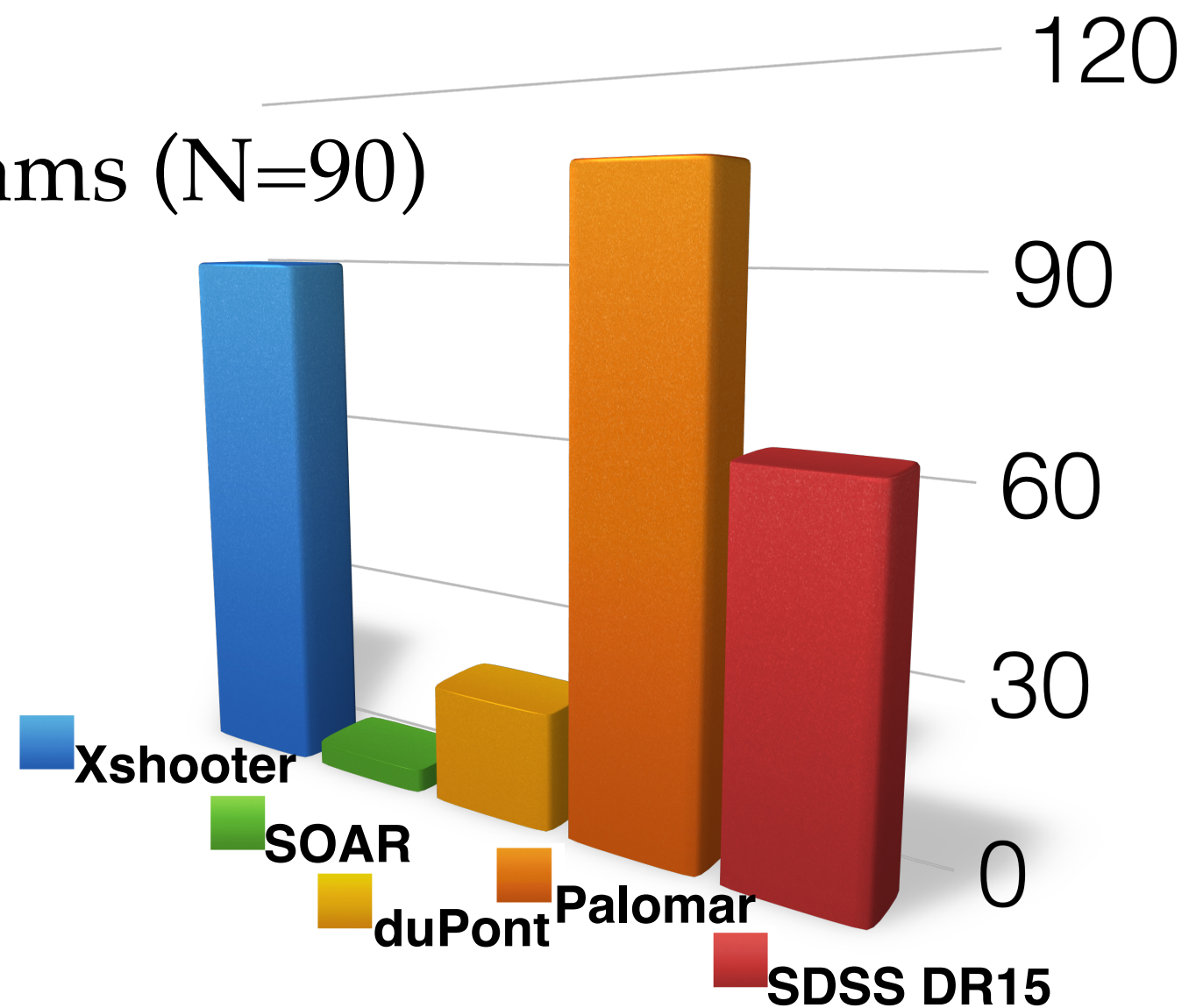
1. ESO VLT Xshooter programs ($N=90$)

2. SOAR ($N=4$)

3. du Pont B&C ($N=20$)

4. Palomar ($N=106$)

5. SDSS DR15 ($N=64$)



Spectral line fitting

1. pPXF (Cappellari&Emsellem04)

- Stellar kinematics:
 - 1) BC03 + MILES library: 3600 - 7200 Å
 - 2) GK-stellar templates: 3200 - 10000 Å for Xshooter data

2. GANDALF (Gas and absorption line fitting, Sarzi+06)

- Fit Gaussian emission-lines (, measure absorption-line strengths (Lick indices) from emission-line subtracted SED)

Spectral sources (Sy1.8 - Sy2, LINER, N=284)

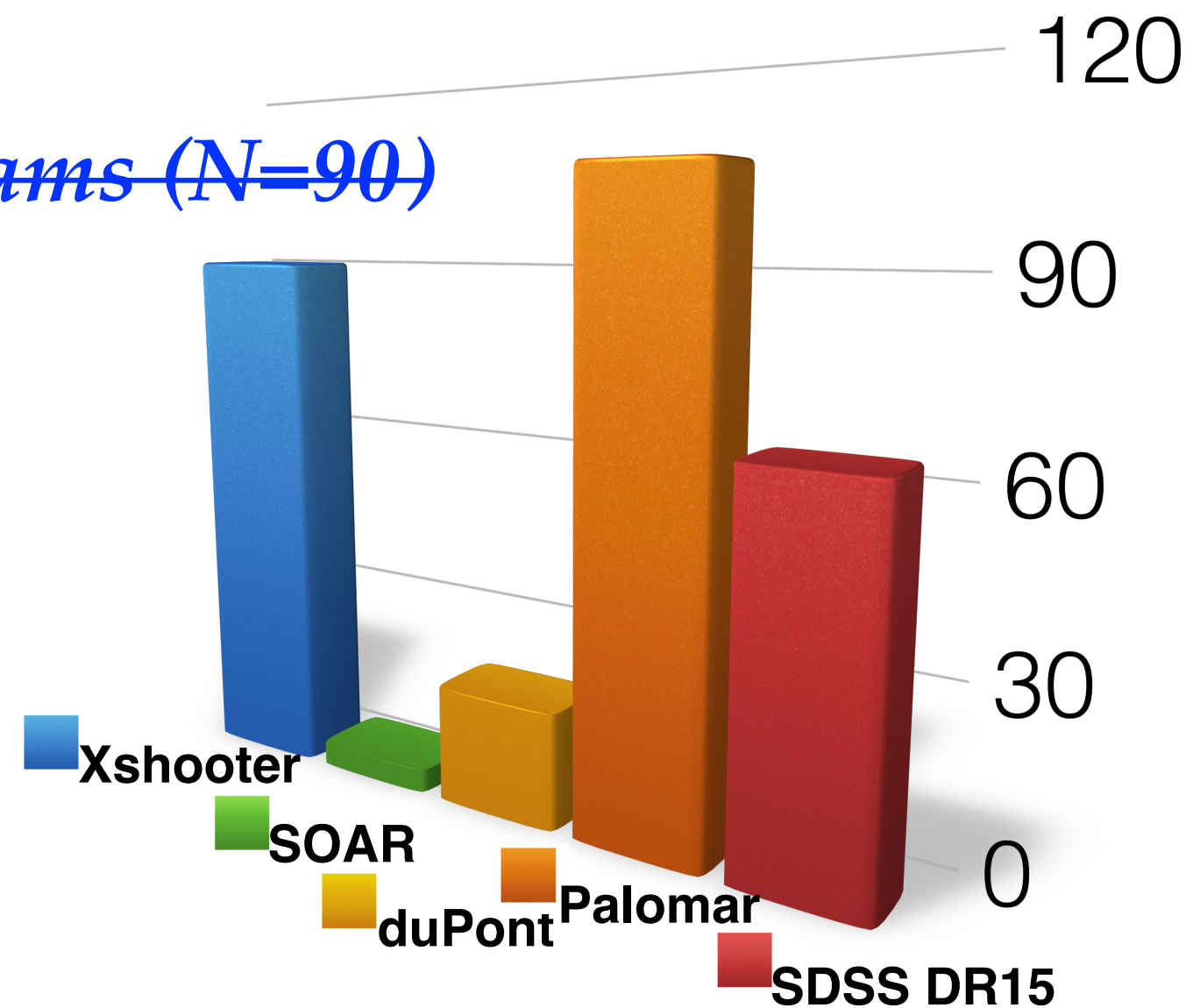
1. ~~ESO VLT Xshooter programs (N=90)~~

2. SOAR (N=4)

3. ~~du Pont B&C (N=20)~~

4. ~~Palomar (N=66 / 106)~~

5. SDSS DR15 (N=64)

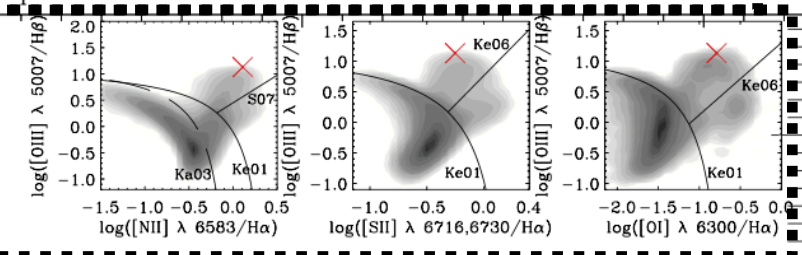
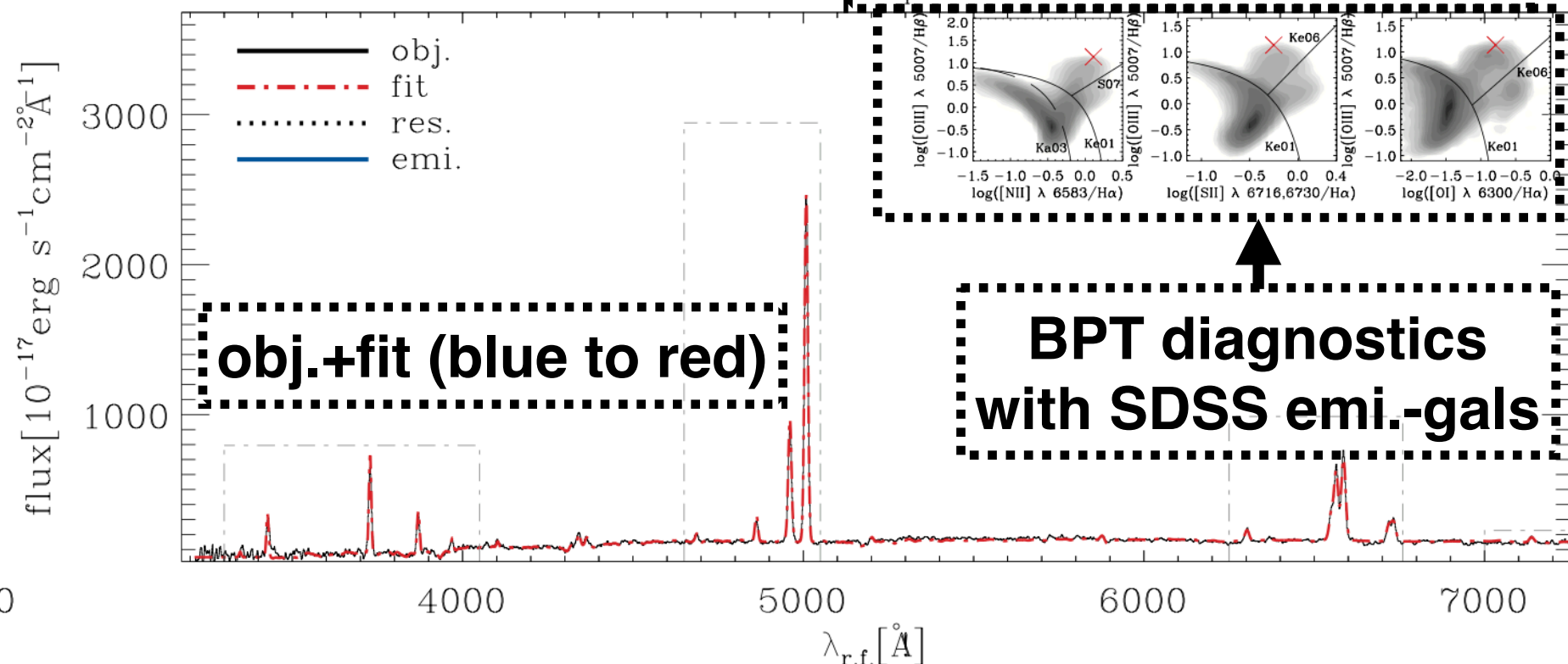
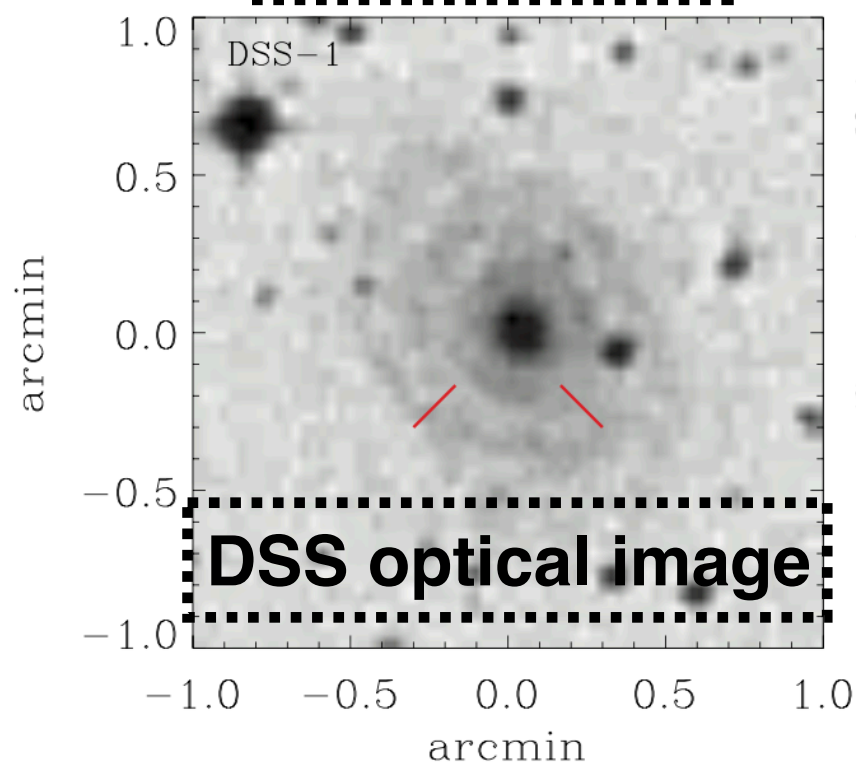


(page:1/1)
 BAT_index=489
 SWIFTJ1009.3-4250
 ES0263-13
 z=0.03300

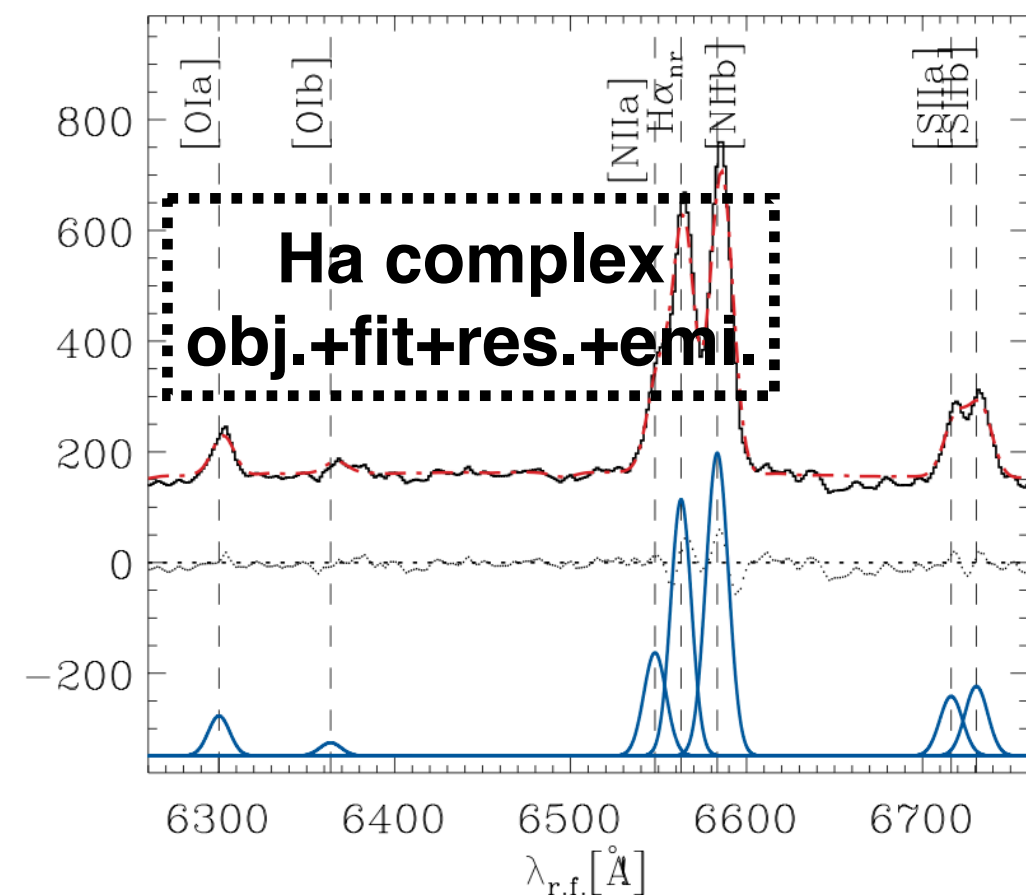
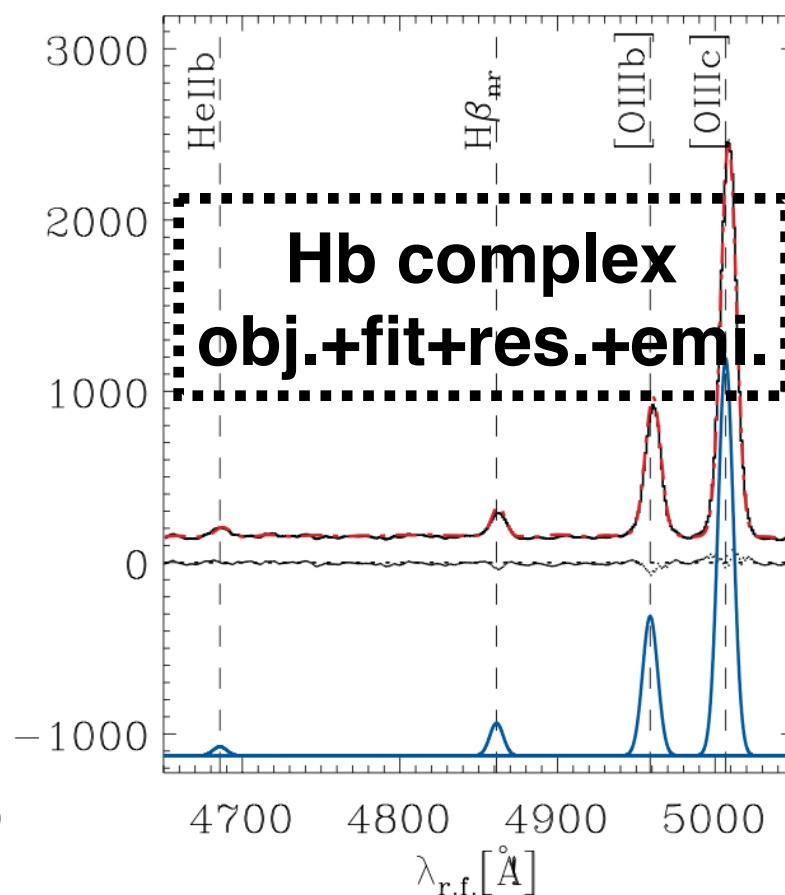
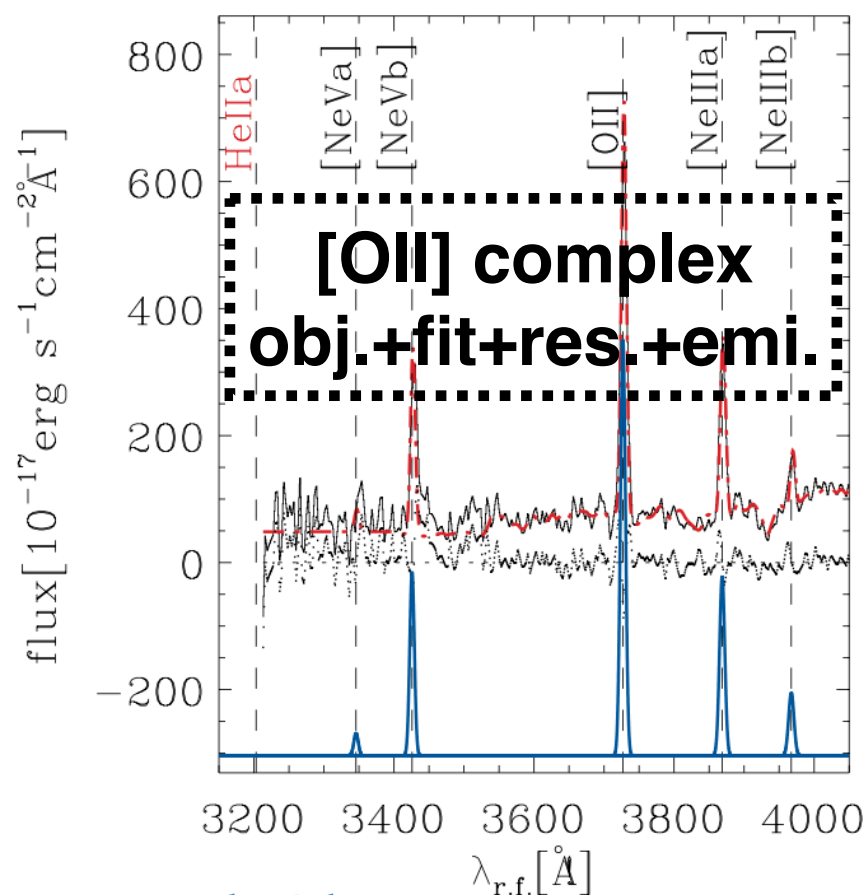
object

observation

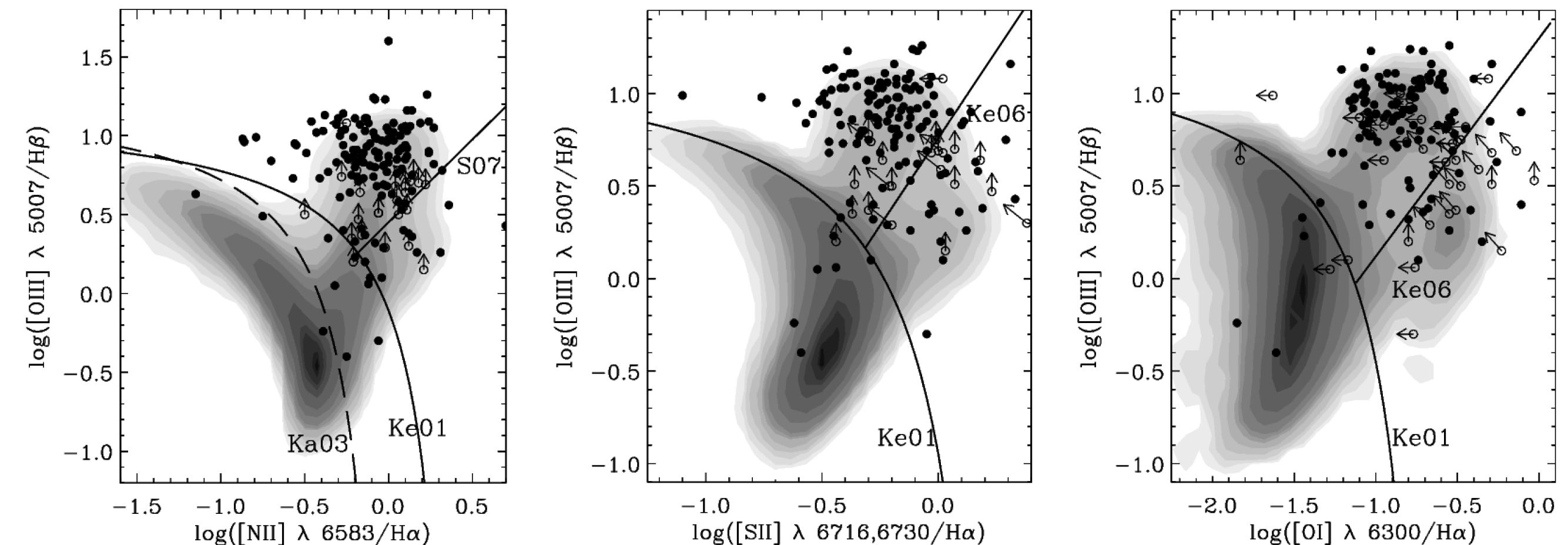
telescope/instrument:duPont/B&C
 obs.date:2016-03-13
 $t_{\text{exp.}} = 600[\text{s}]$



**BPT diagnostics
 with SDSS emi.-gals**



BPT diagnostics (for duPont+Xshooter+Palomar, $N=163$)



filled contours: SDSS DR7 emission-line gals. ($N \sim 180,000$)

filled circles: BASS DR2 ($S/N_{lines} > 3$, (139, 139, 124)/163)

open circles: BASS DR2 ($S/N_{lines} < 3$, upper-limit, (24, 24, 39)/163)

Todo

1. Fitting the rest of sources (N=114)
 - (Telluric absorption correction need to be done)
2. Fitting Quality Assessment
 - Visual inspection is subjective
 - Not all nearby emission-line show similar fitting quality
 - Q.A. for each line is required in a quantitative way: χ^2
3. Tabulation