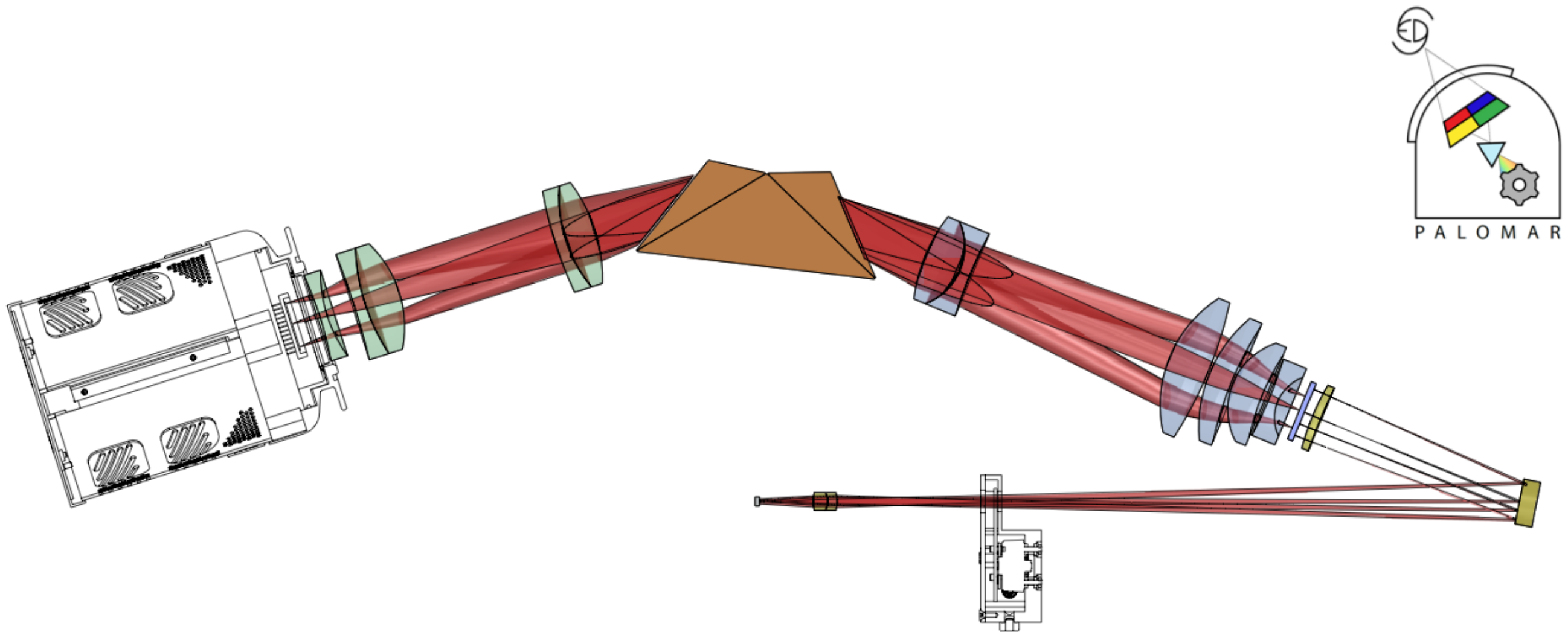


SEDM: database and web interface

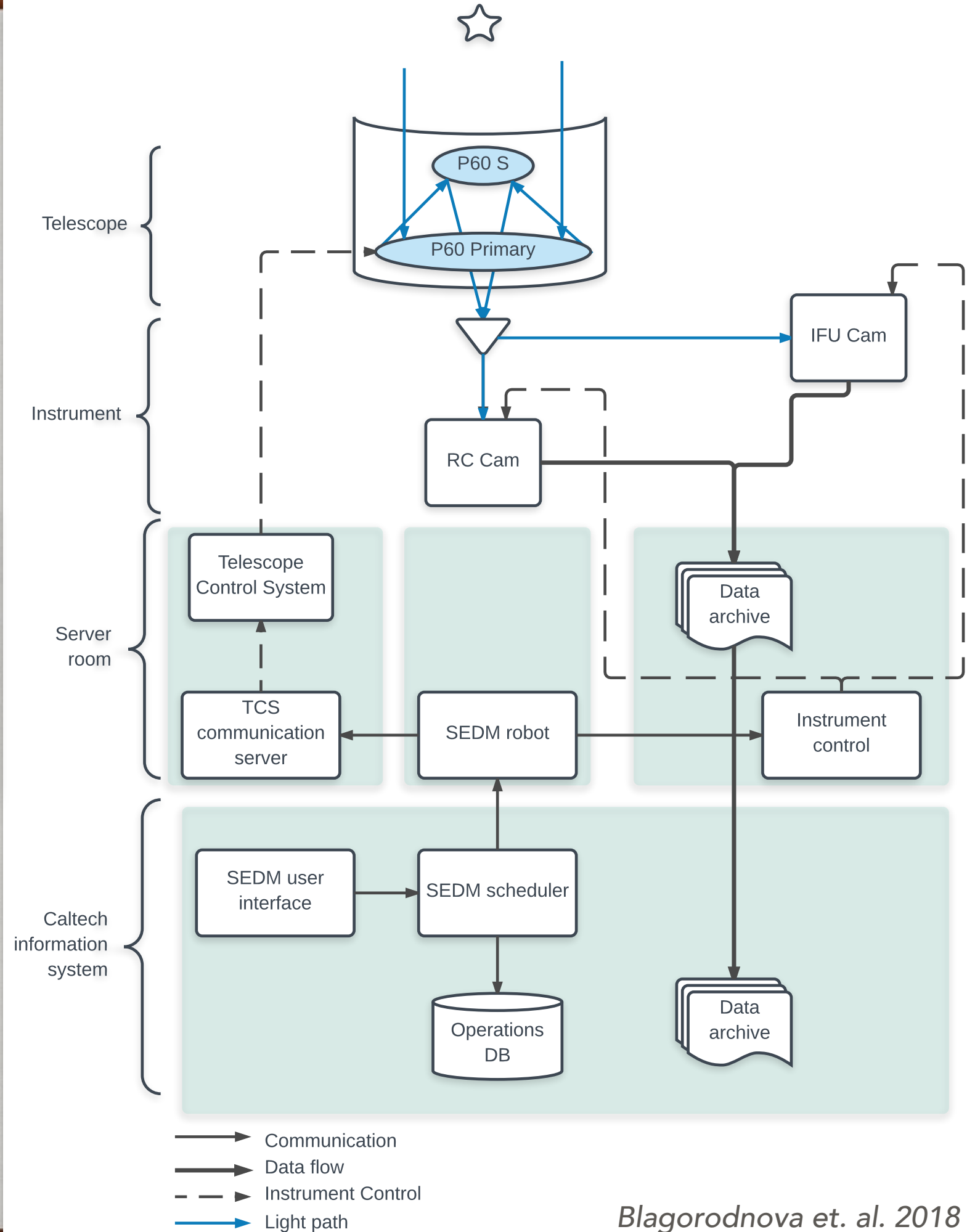


NADIA BLAGORODNOVA

on behalf of the SEDM team

Caltech

DATA SYSTEM



SEDM DATA FLOW



1. Targets assignment and priorities
2. Scheduling
3. Observation
4. Calibration and data reduction
5. Data access + Quality assessment

SEDM DATABASE

Database
SEDM DB Layout
Read table & column comments as mouse-over tooltips

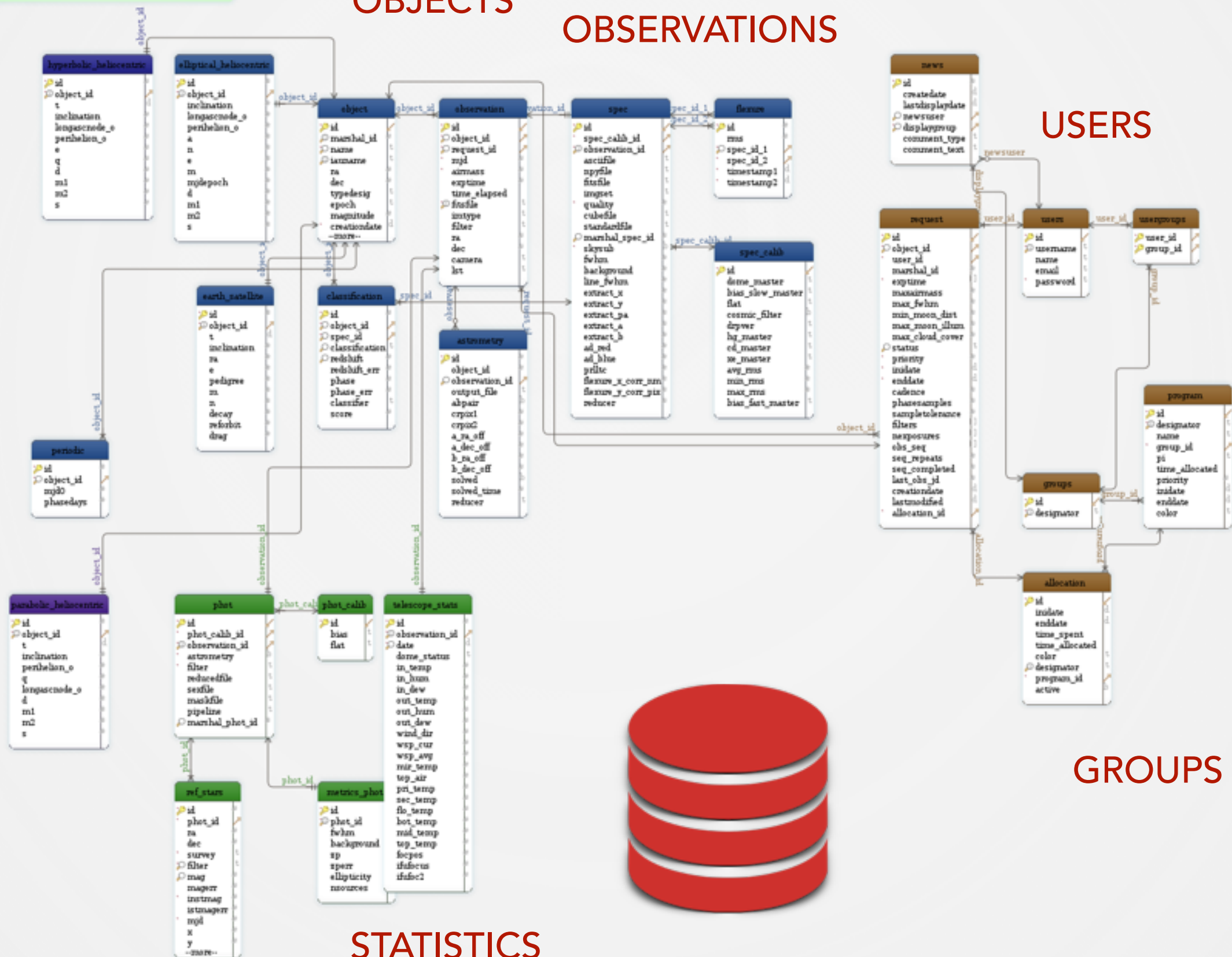
OBJECTS

OBSERVATIONS

USERS

GROUPS

STATISTICS



SEDM DATABASE

- Integrated with the GROWTH marshal
- Scheduling and daily operations
- Tracking of observation status, and image quality and reporting.
- Permissions and data access rights
- **Future developments**
 - Integrated with (variable / SSO) marshals
 - Anomaly triggers and alerts (data quality monitoring).

FOLLOW-UP ASSIGNMENT

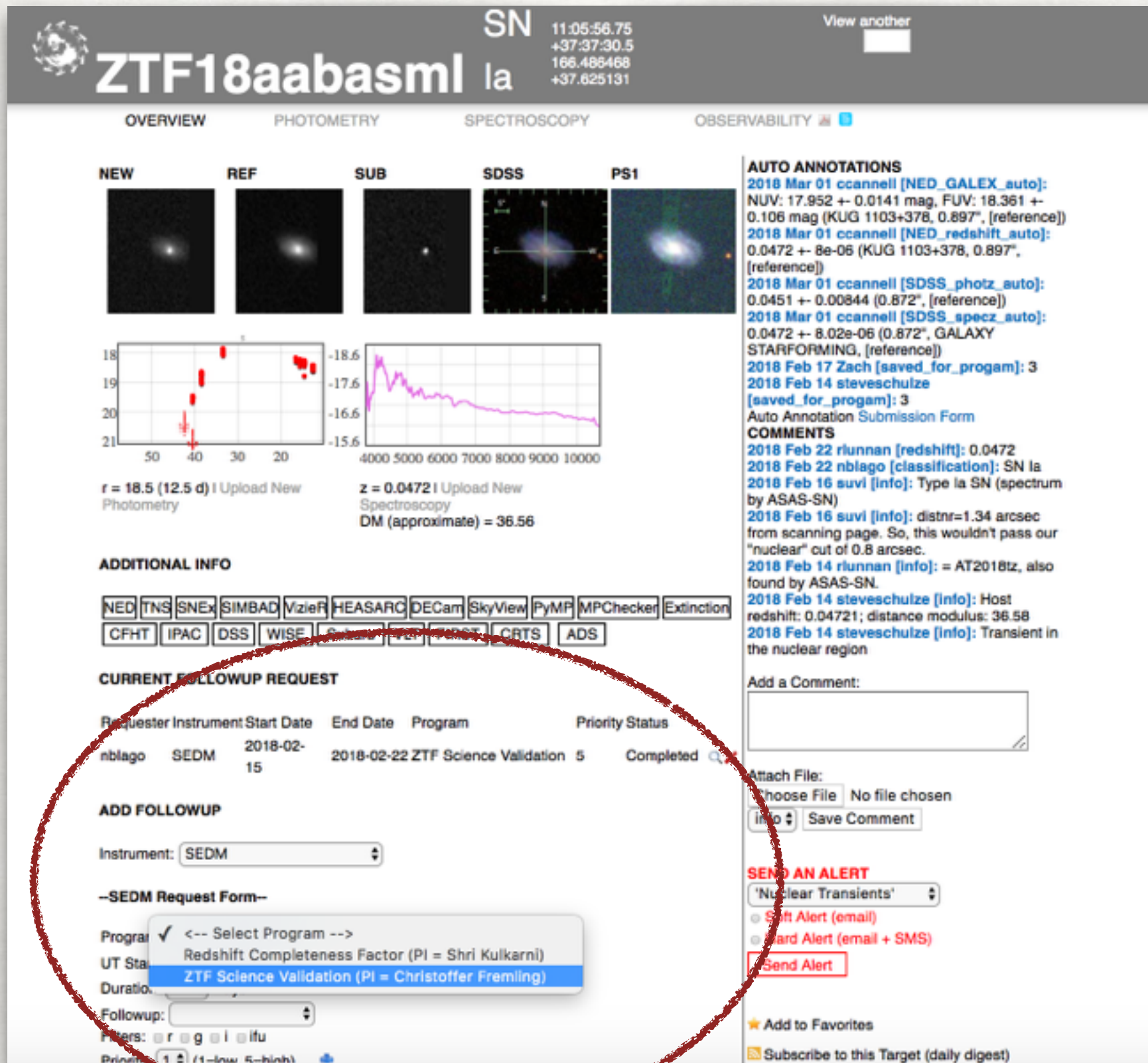
Targets request

Scheduling

Observation

Data reduction

Data distribution



Current:

- Assignment using the marshal
- Human-based ~10 targets / night (iPTF usage only)
- 1-5 priority assigned by users
- Managed by SEDM czar

Future:

- Automatic requests by the marshals (mag?, filters?)
- Priorities assigned by science program.

SEDM WEB SITE: <http://pharos.caltech.edu>

Hello nblago! 😊

• Logged in as nblago

Active Requests for the last 7 days

allocation	object	start date	end date	priority	status	lastmodified
2018A-GROWTH	ZTF18aabxrjp	2018-03-20	2018-03-27	3.00	PENDING	2018-03-19 22:58:20.267933
2018A-GROWTH	ZTF18aacaqam	2018-03-20	2018-03-27	1.00	PENDING	2018-03-19 22:58:18.713811
2018A-GROWTH	ZTF18aaewugy	2018-03-20	2018-03-27	3.00	PENDING	2018-03-19 22:58:17.103799
2018A-GROWTH	ZTF18aafwiyf	2018-03-20	2018-03-27	2.00	PENDING	2018-03-19 22:58:15.897294
2018A-ZTF_comm	ZTF18aabvzya	2018-03-13	2018-03-20	2.00	PENDING	2018-03-13 10:34:09.666350
2018A-ZTF_comm	ZTF18aabvpxp	2018-03-13	2018-03-20	2.00	PENDING	2018-03-13 10:33:26.557747

Completed Requests in the last 7 days

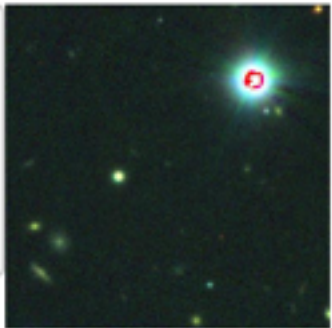
allocation	object	start date	end date	priority	status	lastmodified
2018A-ZTF_comm	ZTF18aabrgzo	2018-03-19	2018-03-26	4.00	COMPLETED	2018-03-18 20:57:43.811596
2018A-ZTF_comm	ZTF17aaajnki	2018-03-19	2018-03-26	4.00	COMPLETED	2018-03-18 20:49:24.612721
2018A-ZTF_comm	ZTF18aabrgzo	2018-03-14	2018-03-21	4.00	COMPLETED	2018-03-13 17:10:45.062296
2018A-ZTF_comm	ZTF18aabywzu	2018-03-13	2018-03-20	3.00	COMPLETED	2018-03-13 09:33:03.777769

Your Active Allocations

id	allocation	program	group	time allocated	time spent
20180131224701702	2018A-SEDm_eng	SEDm_eng	SEDm_eng	2 days 00:00:00	00:00:00
20180319205709626	2018A-TDE	TDE	ZTF	4 days 01:30:00	00:00:00
20180319205623092	2018A-EllipticalHosts	EllipticalHosts	ZTF	0 days 20:45:00	00:00:00
20180319205512203	2018A-ToONeutrinos	Neutrinos	ZTF	3 days 06:00:00	00:00:00
20180319205402454	2018A-ToO	ToO	ZTF	2 days 00:45:00	00:00:00
20180319205302725	2018A-InfantSNe	InfantSNe	ZTF	0 days 16:15:00	00:00:00



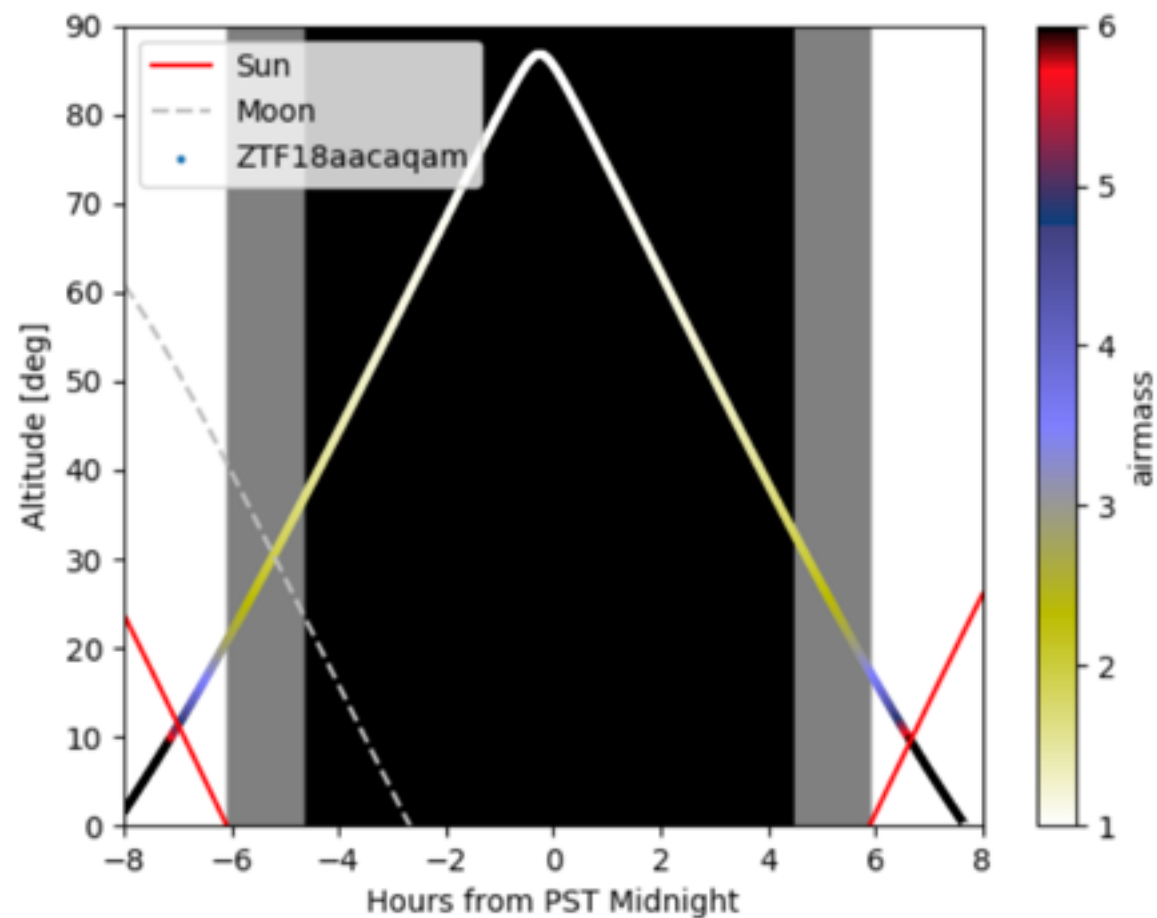
ZTF18aacaqam
RA, DEC (J2000) **11:51:36.92 +36:41:08.05**
177.90381530 36.68557060



Requests

Requester	Allocation	Start Date	End Date	Priority	Status
nblago	2018A-GROWTH	2018-03-20	2018-03-27	1.00	PENDING

Visibility for 2018-03-21 08:00:00 UTC



REAL-TIME WEATHER STATISTICS

Targets request

Scheduling

Observation

Data reduction

Data distribution

SED Machine

nblago home

Objects

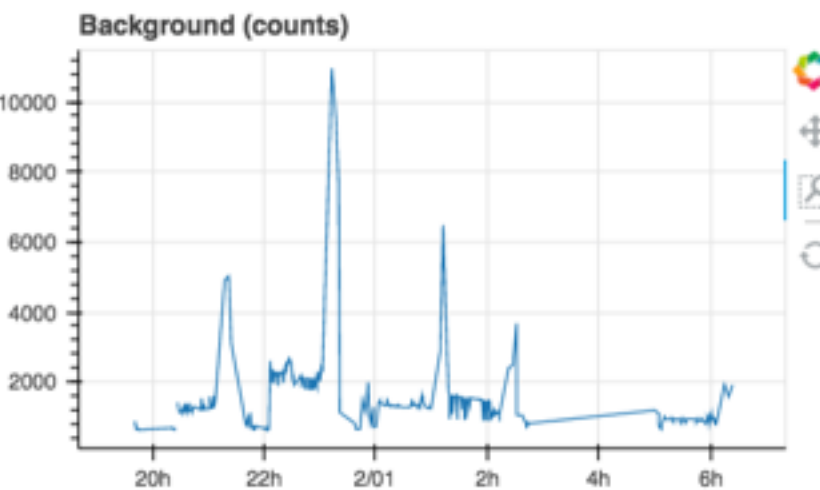
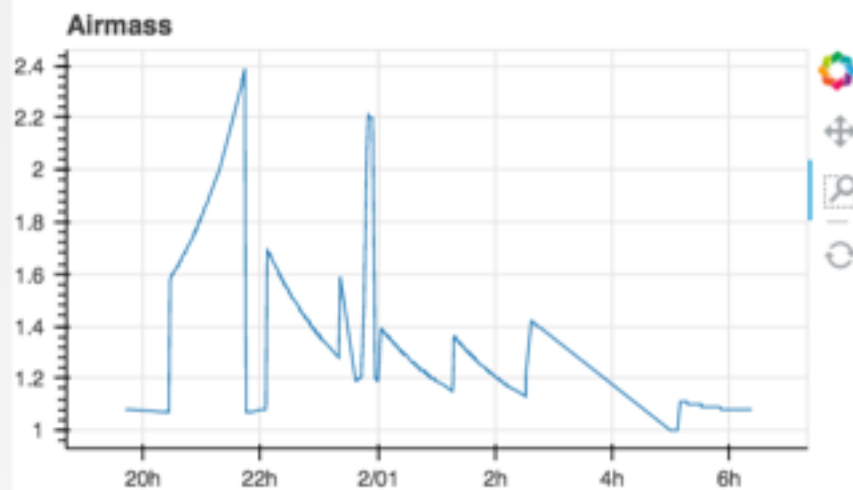
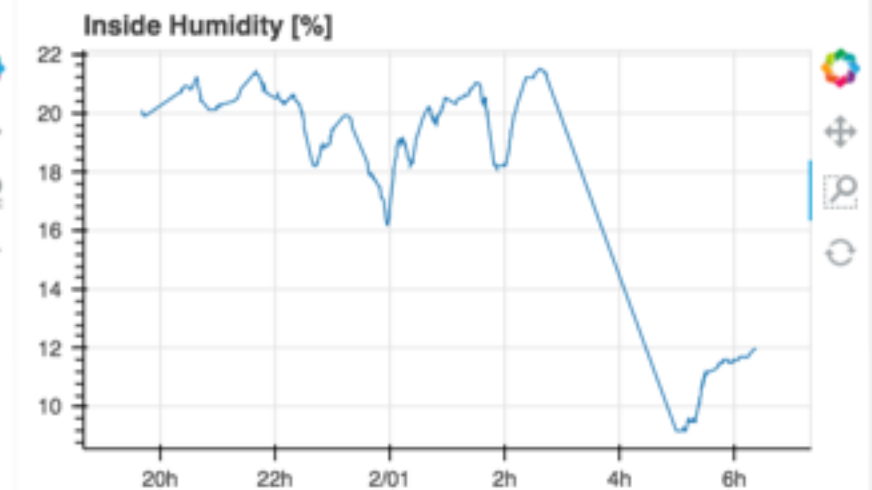
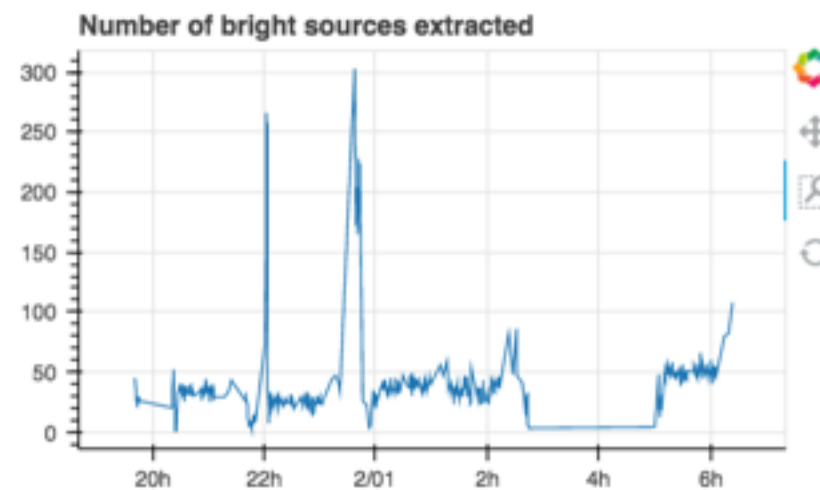
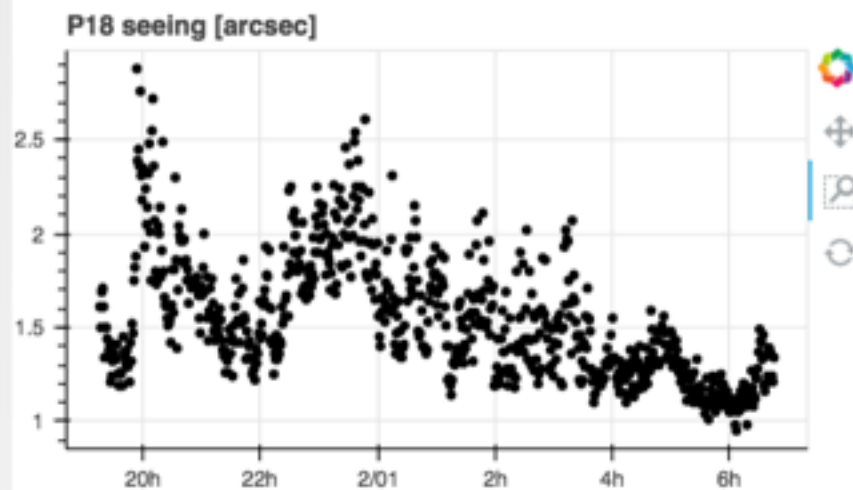
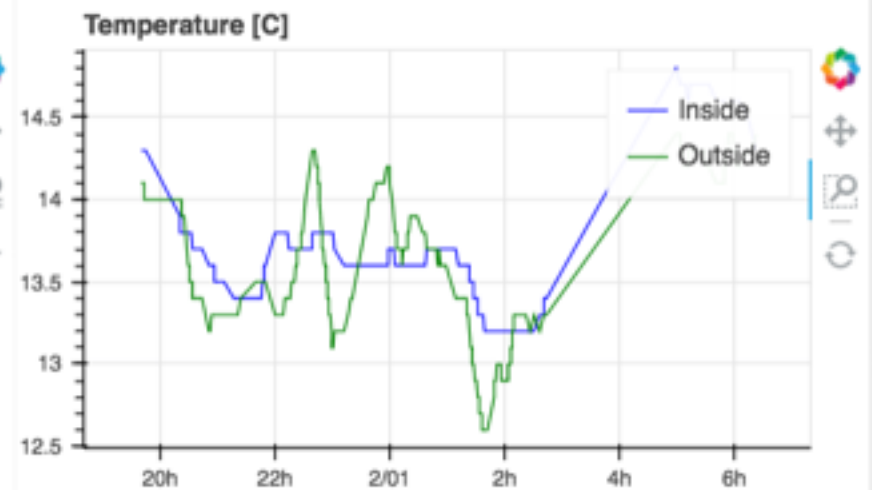
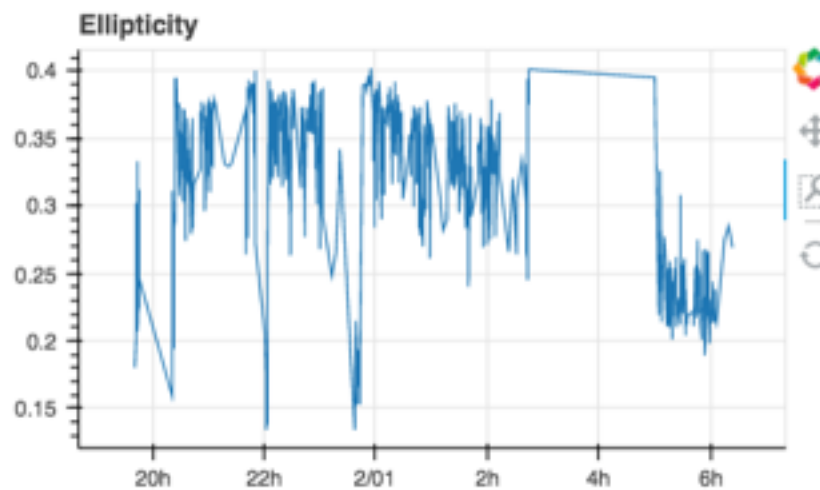
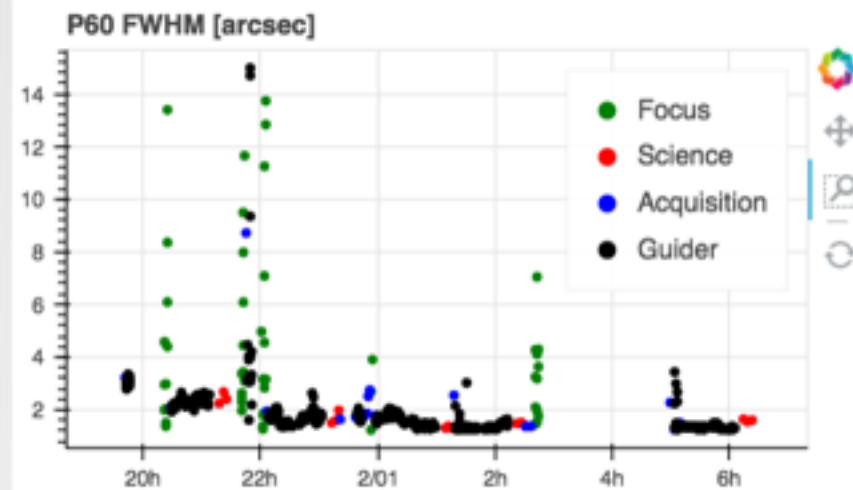
Project Statistics

Data Access ▾

Night Statistics

My account ▾

Weather statistics for selected day: 20180201



- Updated every ~5 min
- Image quality data stored along with each exposure
- Telescope stats stored with each exposure

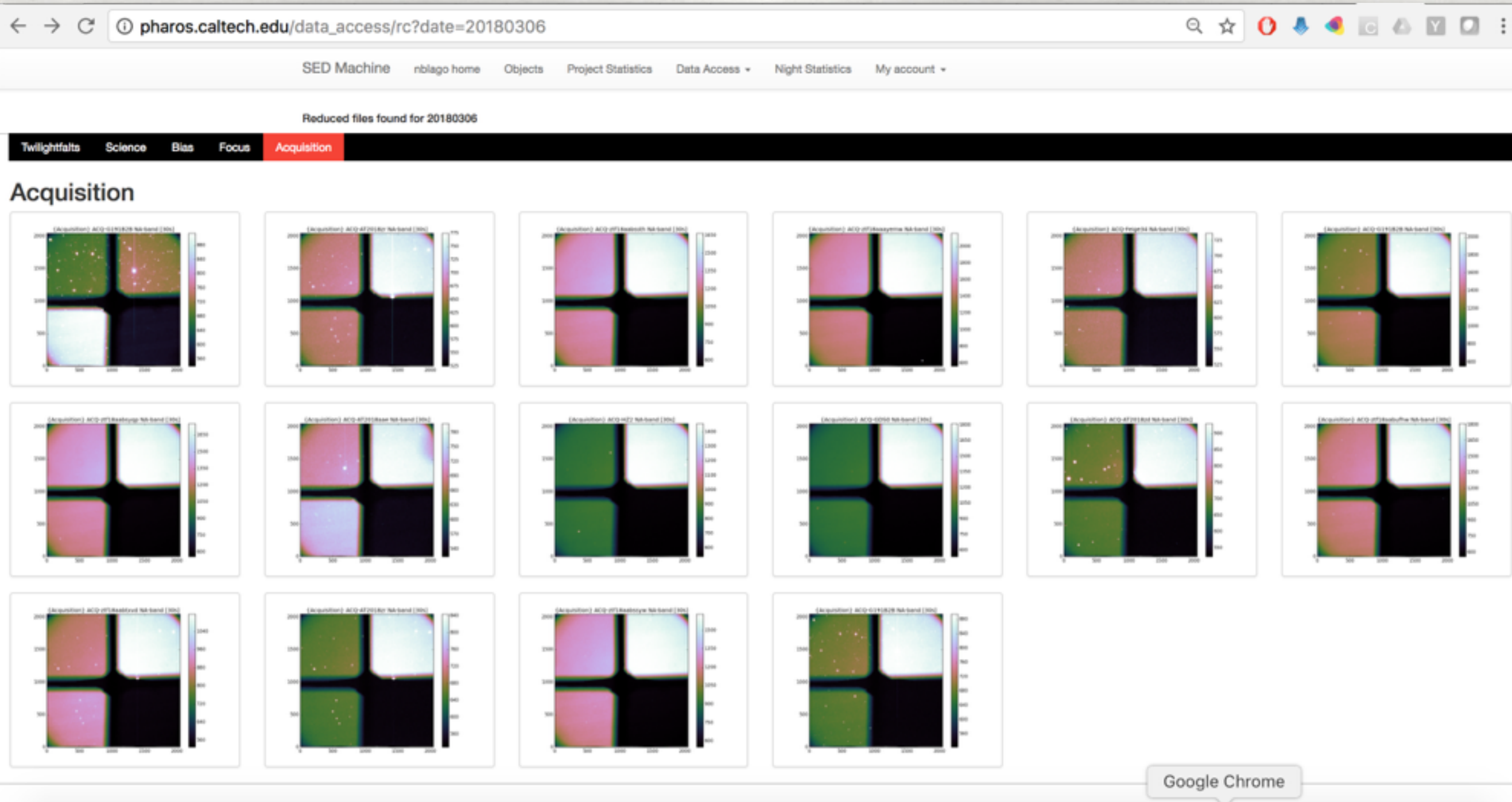
Targets request

Scheduling

Observation

Data
reductionData
distribution

REAL-TIME RC EXPOSURES





(NEAR) REAL-TIME IFU DATA

← → ↺ ⓘ pharos.caltech.edu/data_access/ifu?date=20180306 🔍 ☆ 🔄 ⬇️ 🌈 📄 🗑️

SED Machine nblago home Objects Project Statistics Data Access ▾ Night Statistics My account ▾

Reduced files found for 20180306

AT2018zr_SEDM.txt

Test_obs1_SEDM.txt

STD-HZ2_obs1_SEDM.txt

AT2018aae_SEDM.txt

AT2018zd_SEDM.txt

ztf18aabuflw_SEDM.txt

STD-G191B2B_obs1_SEDM.txt

STD-Feige34_obs1_SEDM.txt

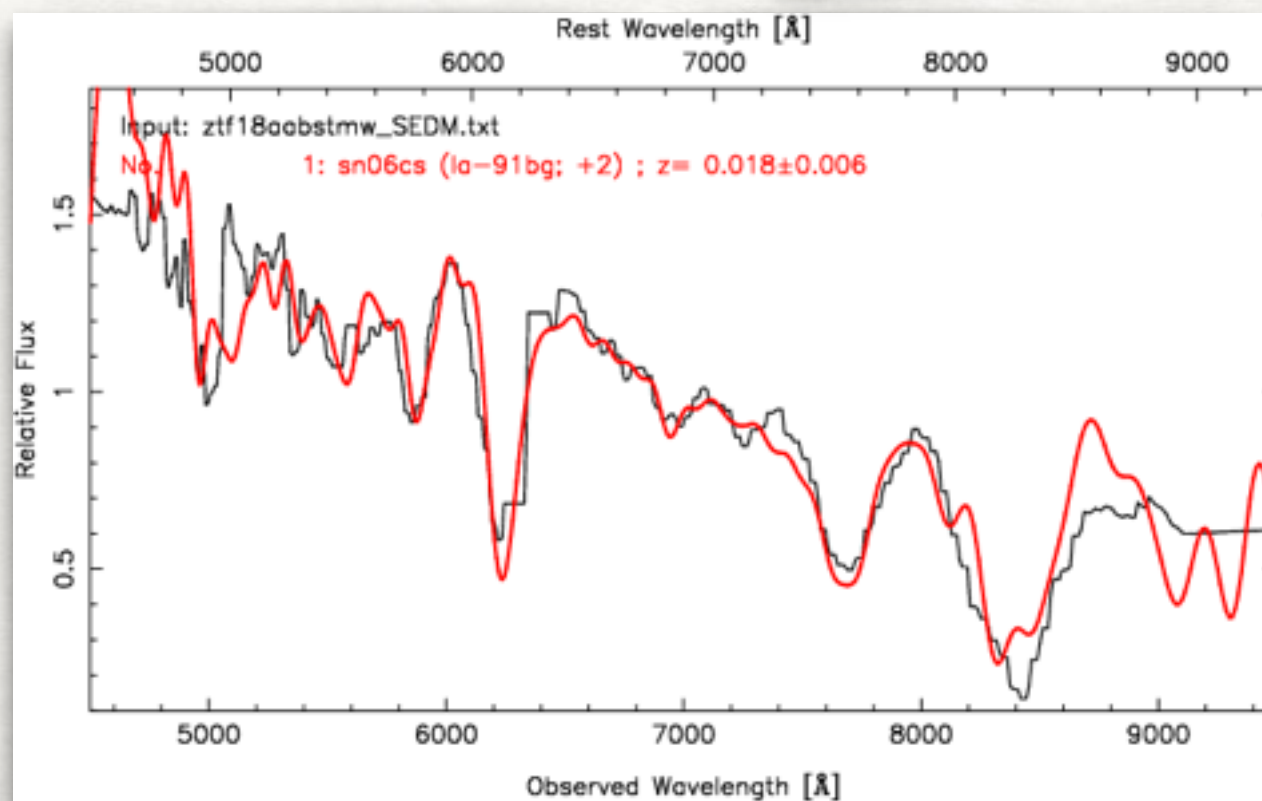
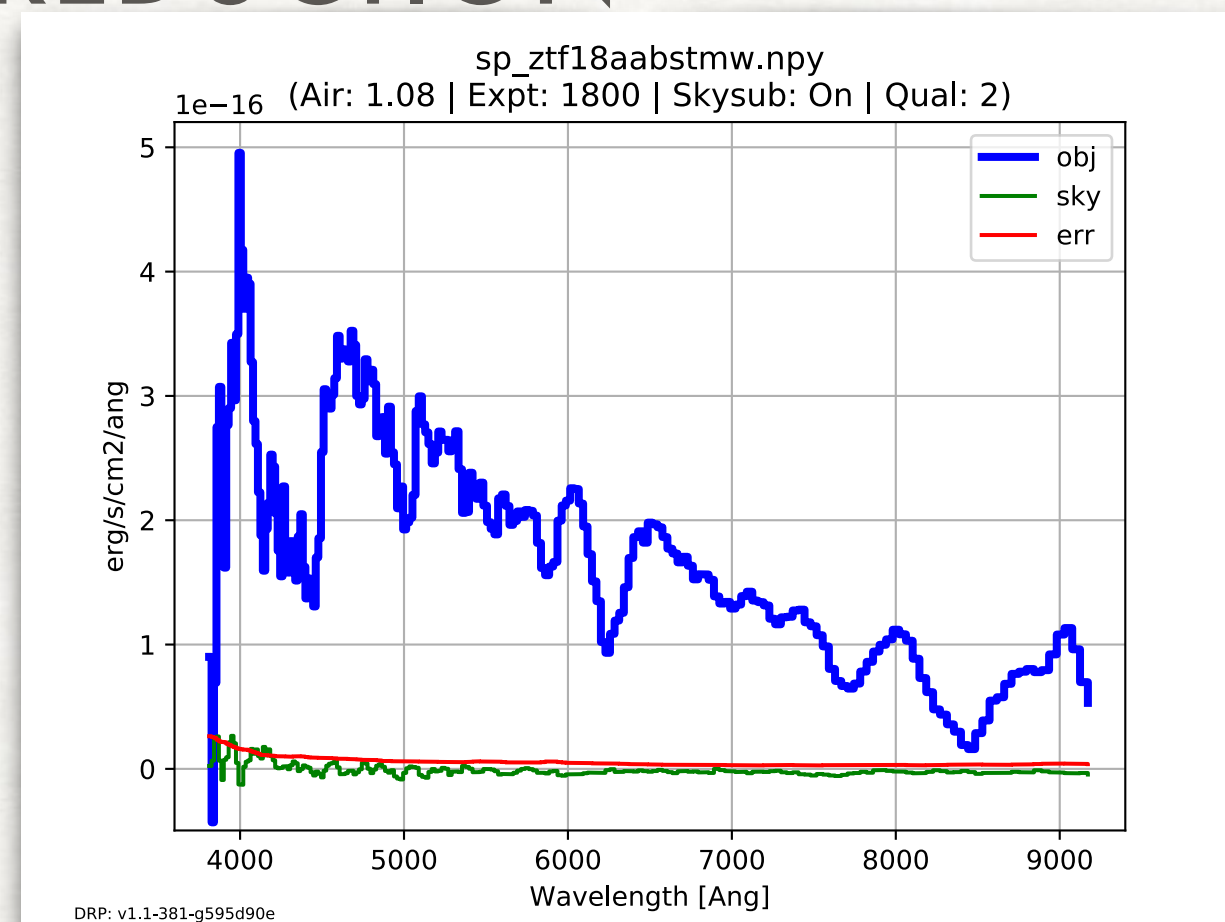
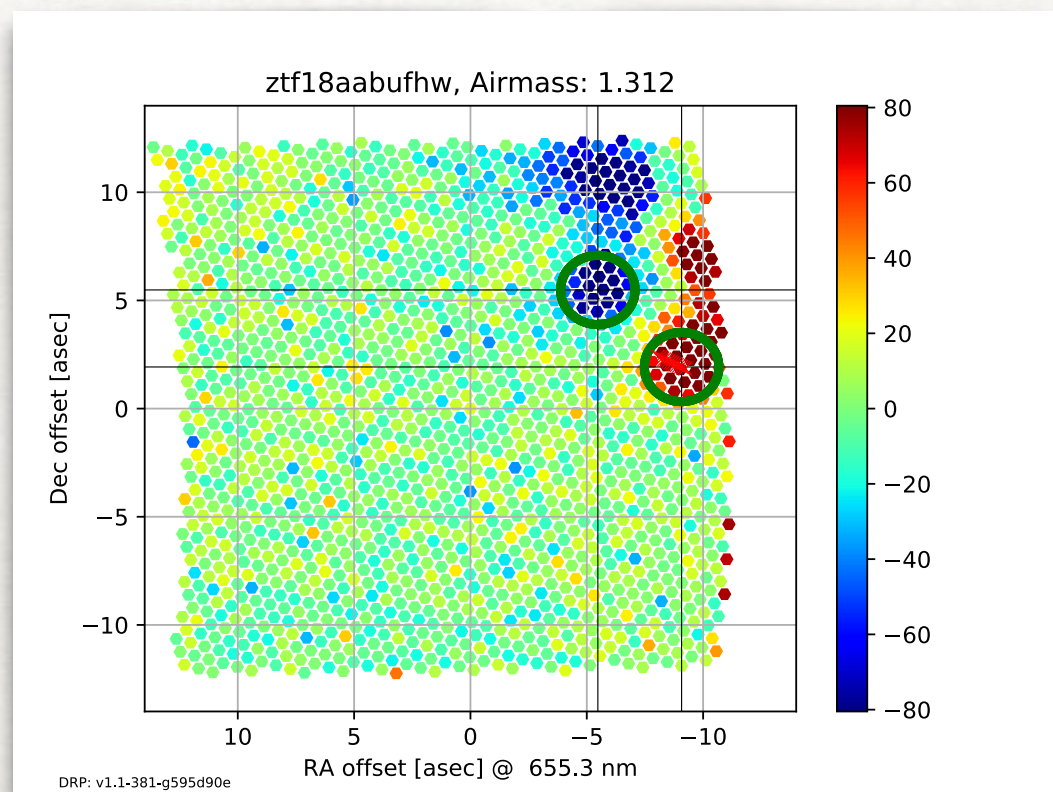
STD-G191B2B_obs2_SEDM.txt

ztf18aabxvd_SEDM.txt

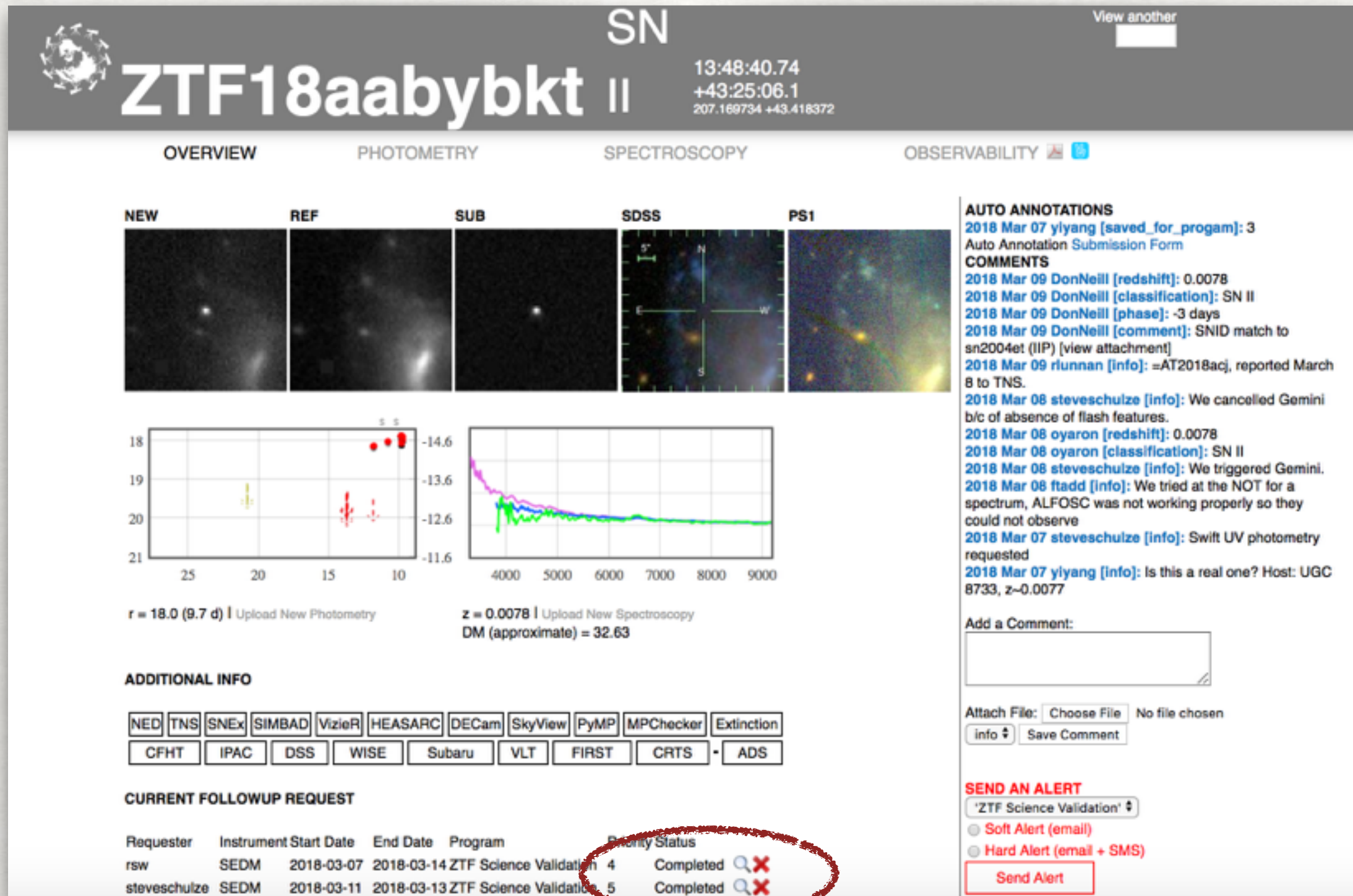
IFU Files

Reduced data

IFU DATA REDUCTION

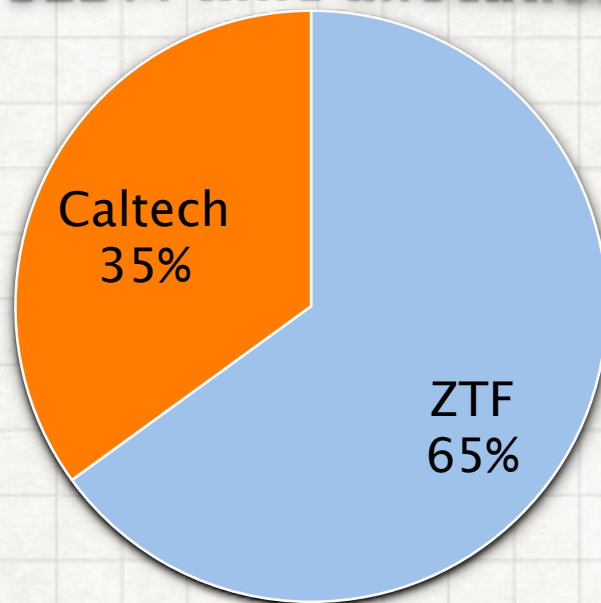


SPECTRA DISTRIBUTION



- Automatic uploaded to the marshal
- Automatically classified (needs integration with the marshal)

SEDM time allocation



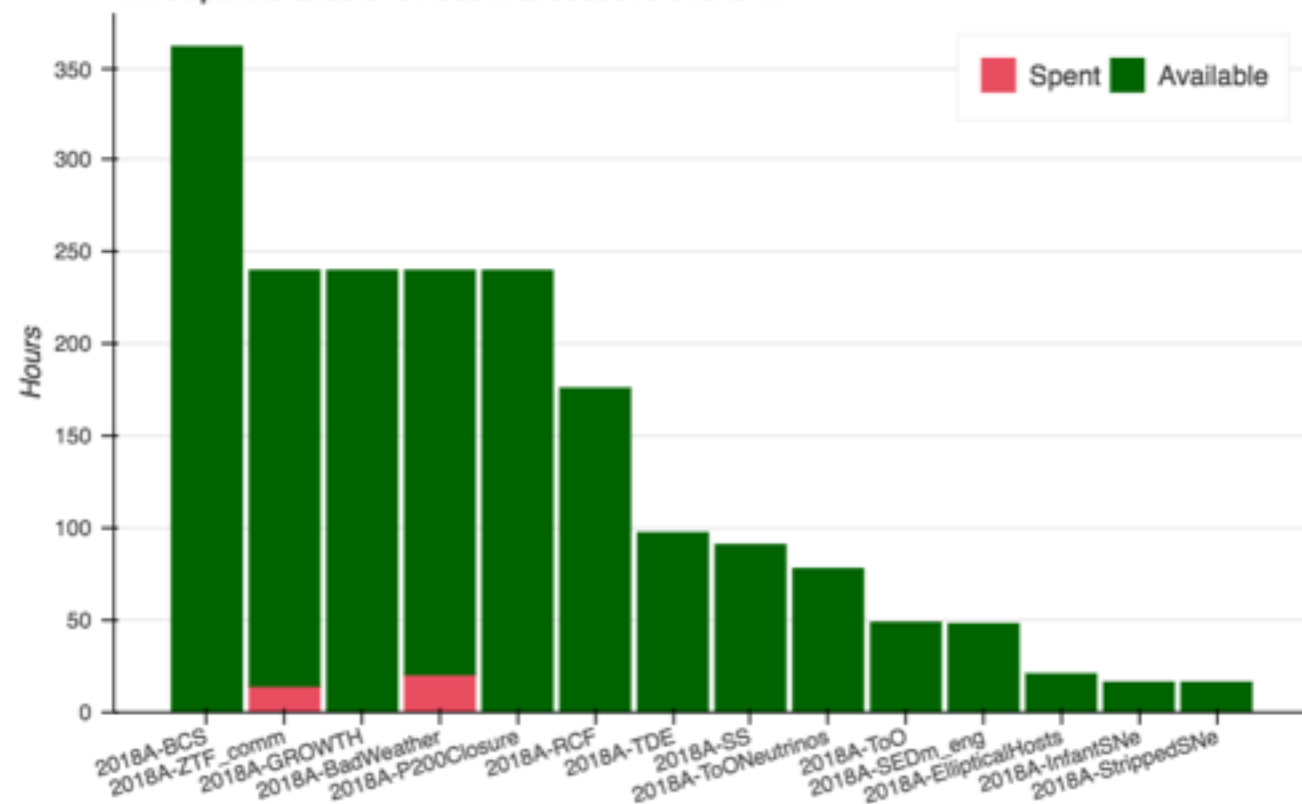
Night allocation example



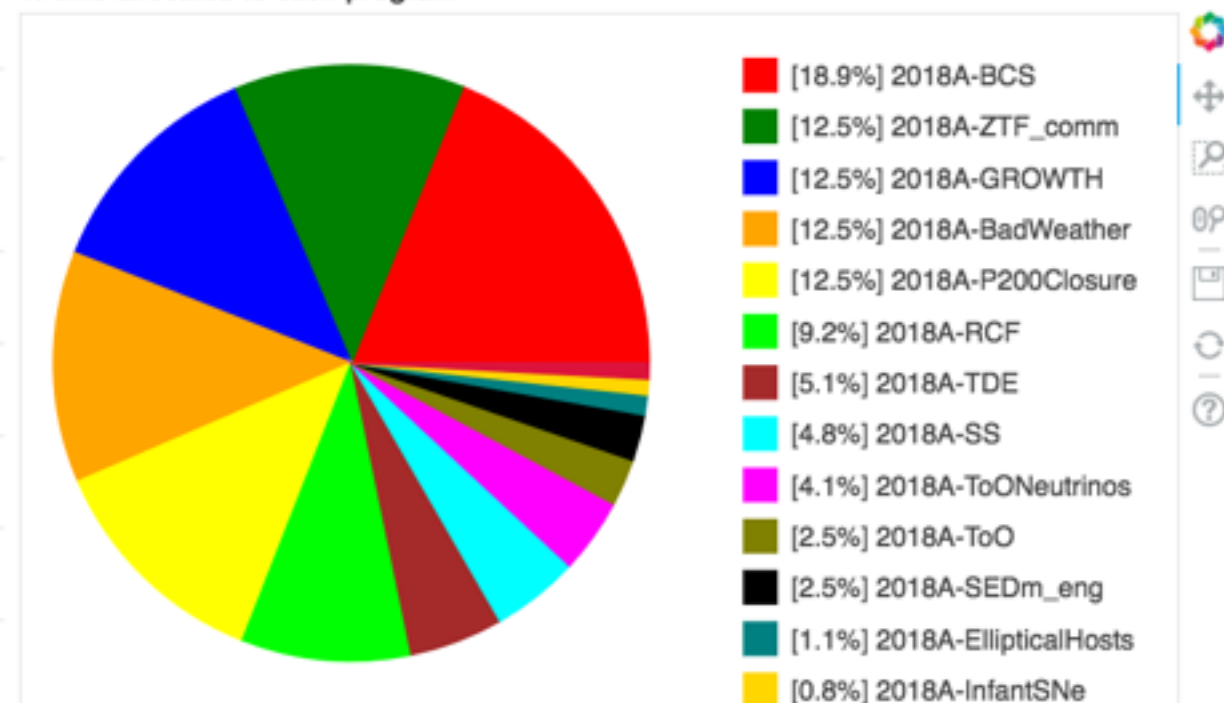
currently approved SEDM time allocations

BCS =	1446	SEDBs
SS =	364	
Stripped envelope SNe =	65	
Infant SNe =	65	
ToO GRB+GW =	195	
ToO Neutrinos =	312	
Elliptical hosts =	83	
TDEs =	390	
Total	2920	SEDBs

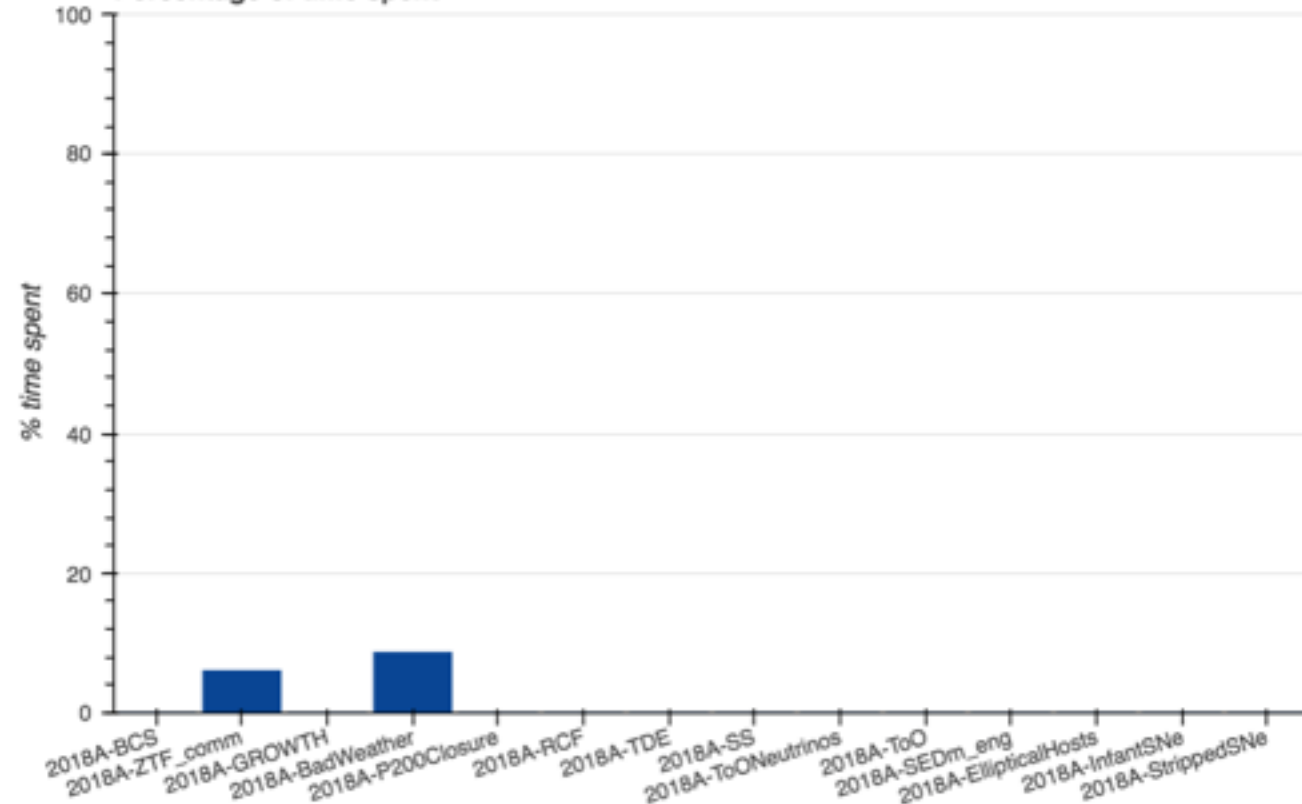
Time spent/available for SEDM allocations this term



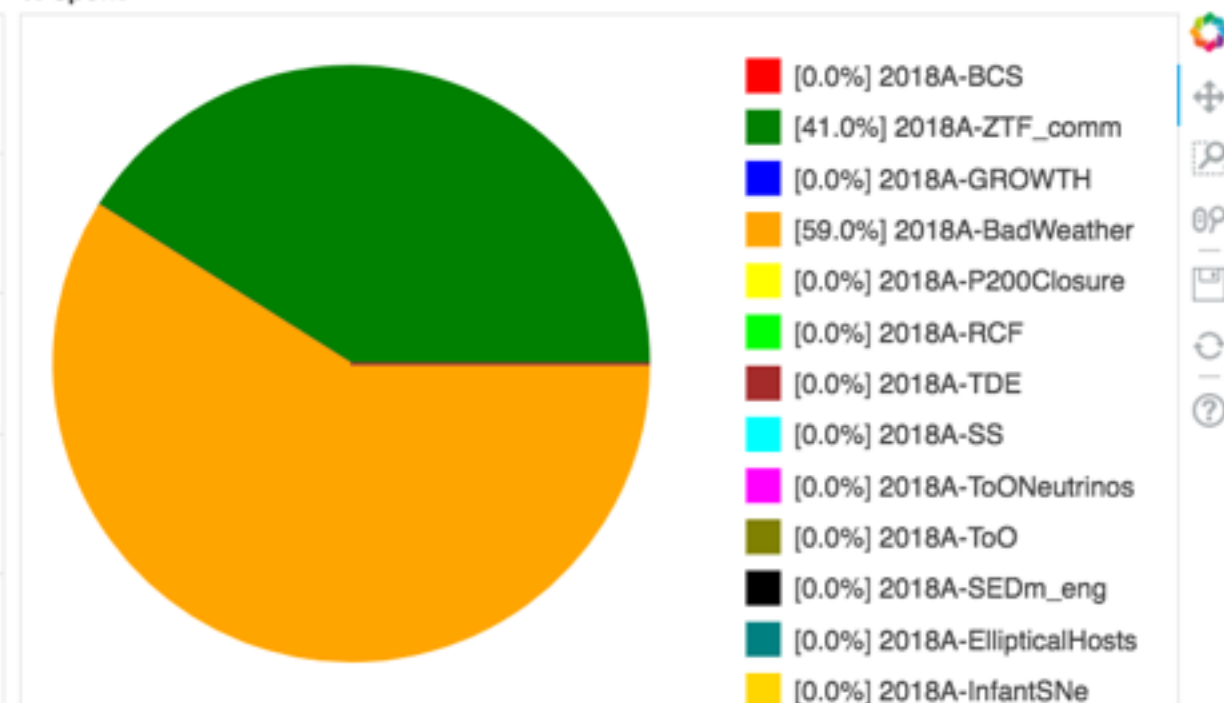
% time allocated to each program



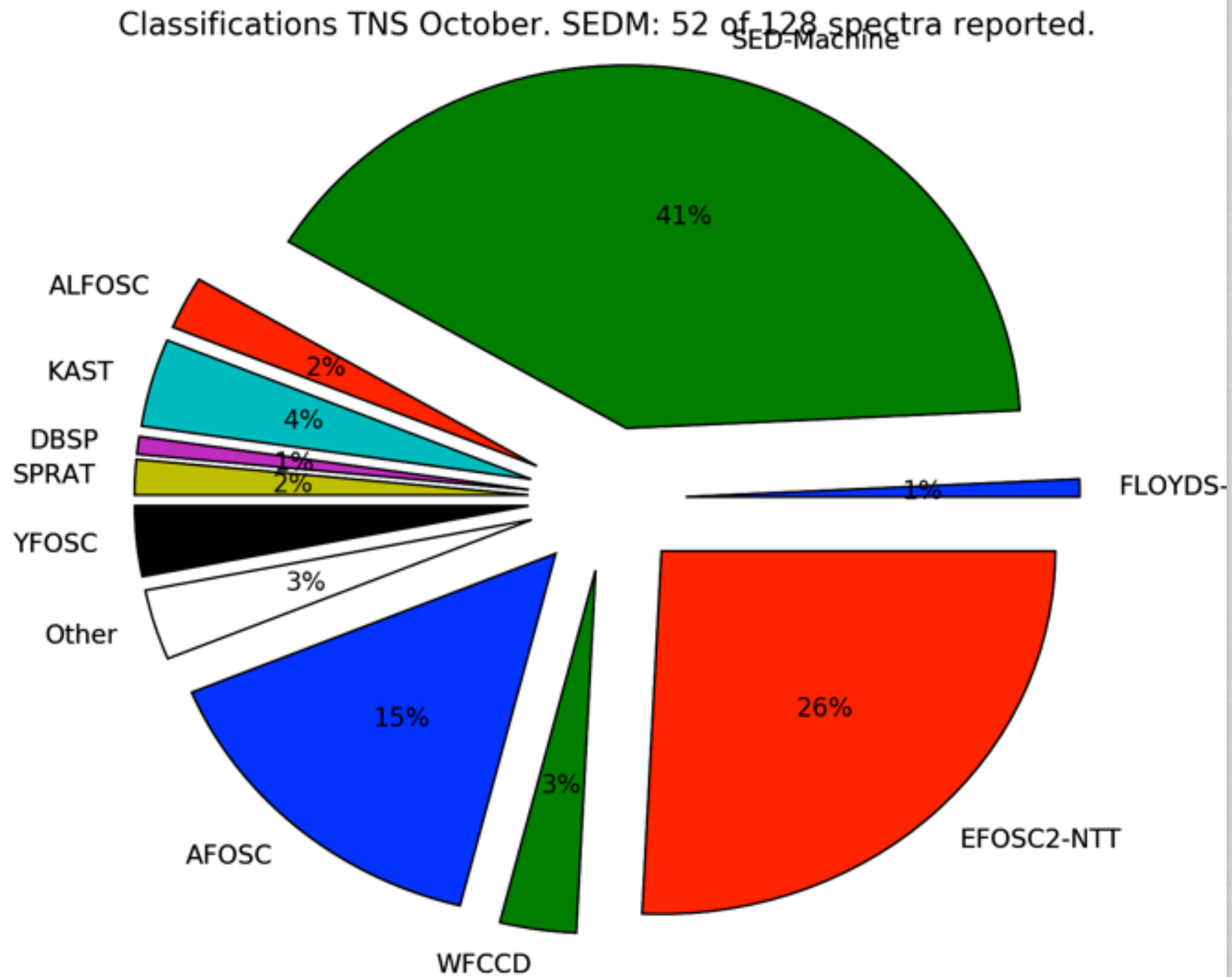
Percentage of time spent



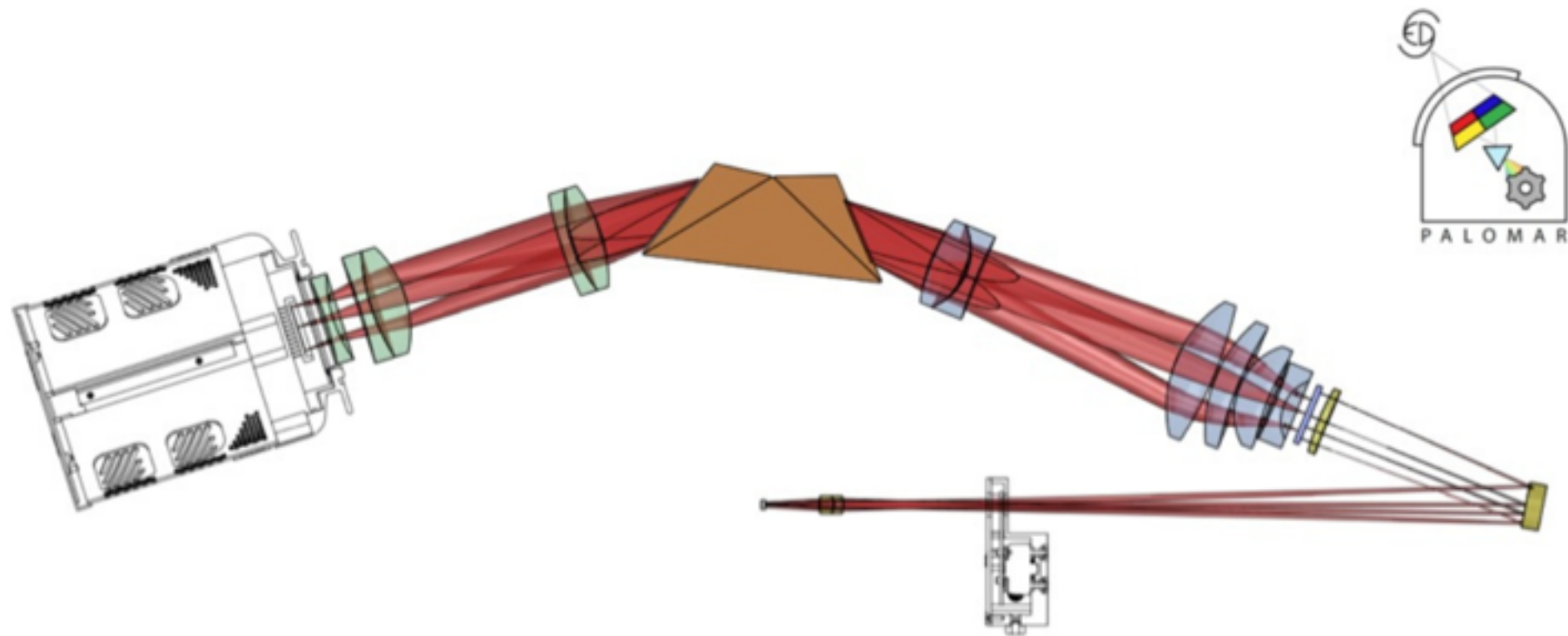
% spent



CLASSIFICATIONS IN OCTOBER 2017



Hello stranger! Please, log in to see Wonderland.



- Website:
 - <http://pharos.caltech.edu>
- Email me to get an account:
 - nblago@caltech.edu