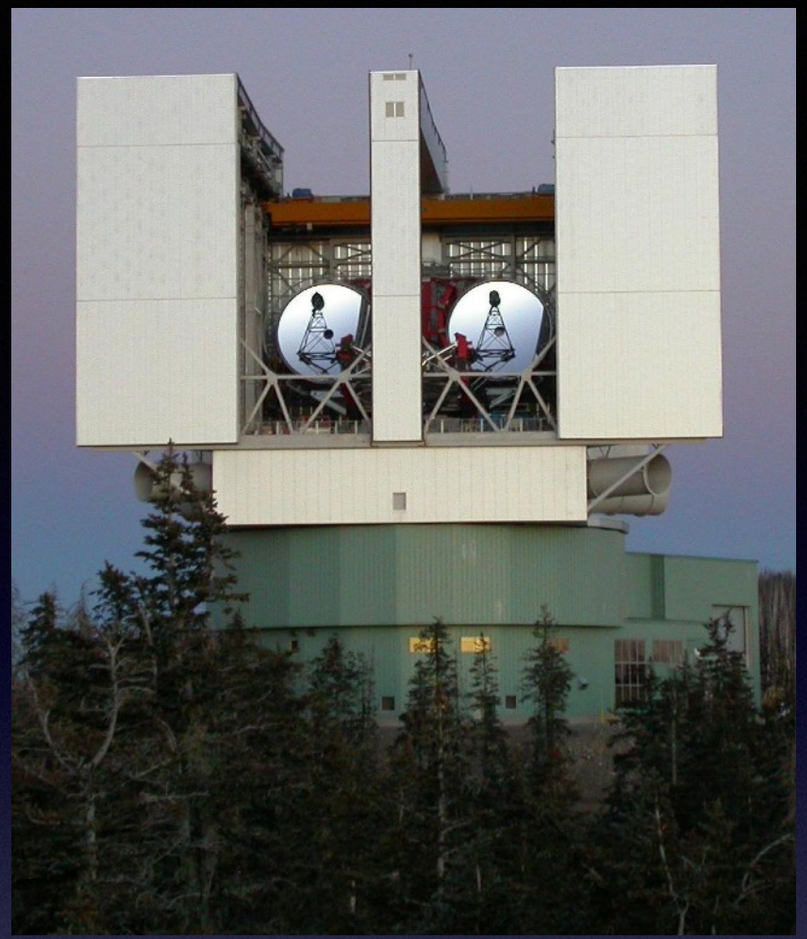
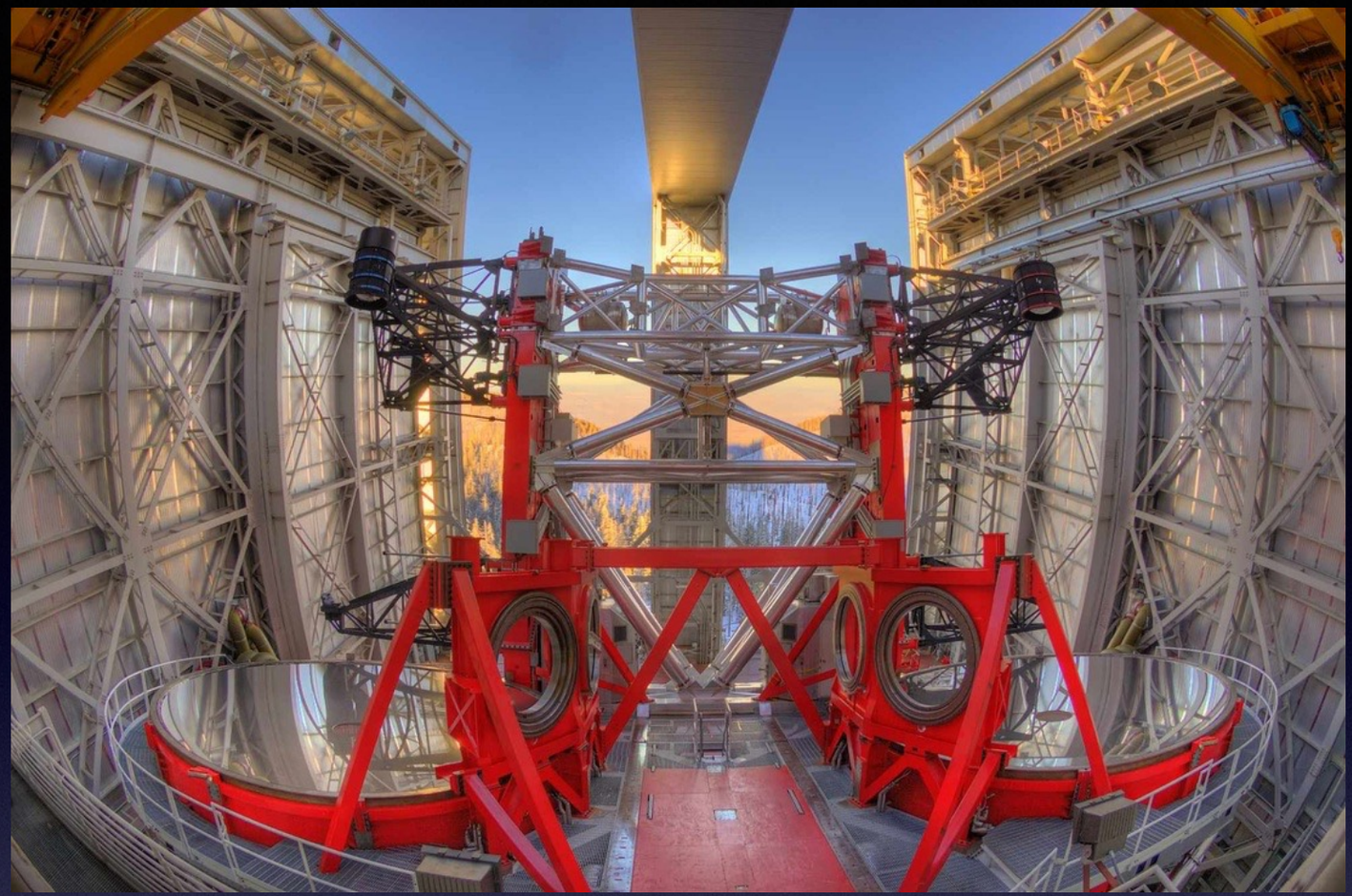
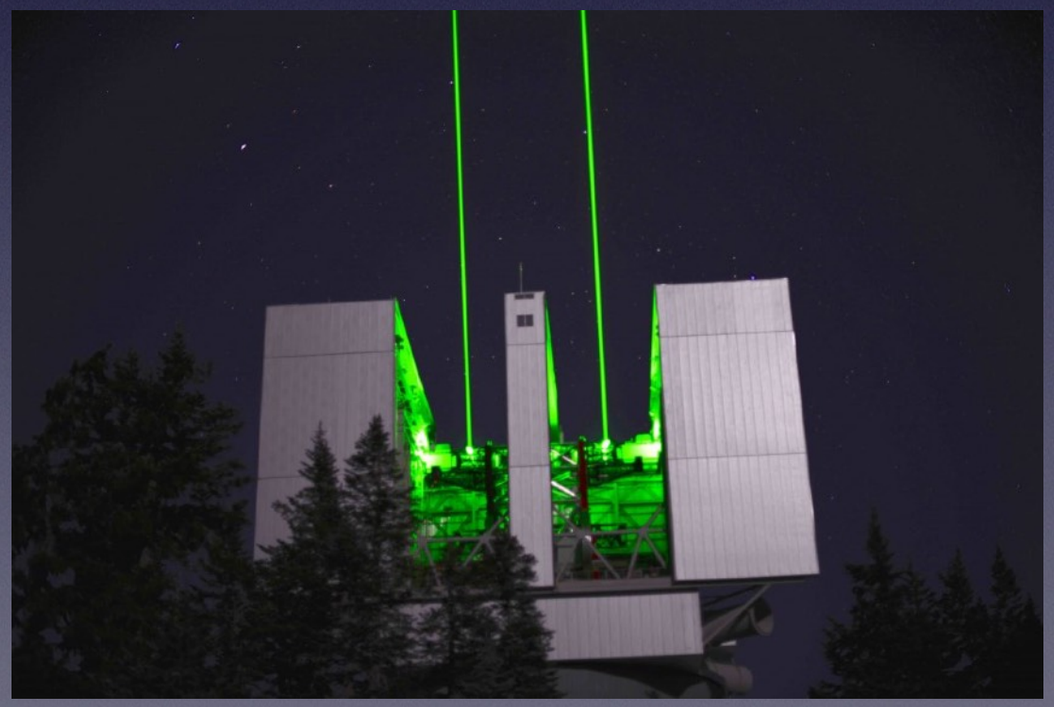
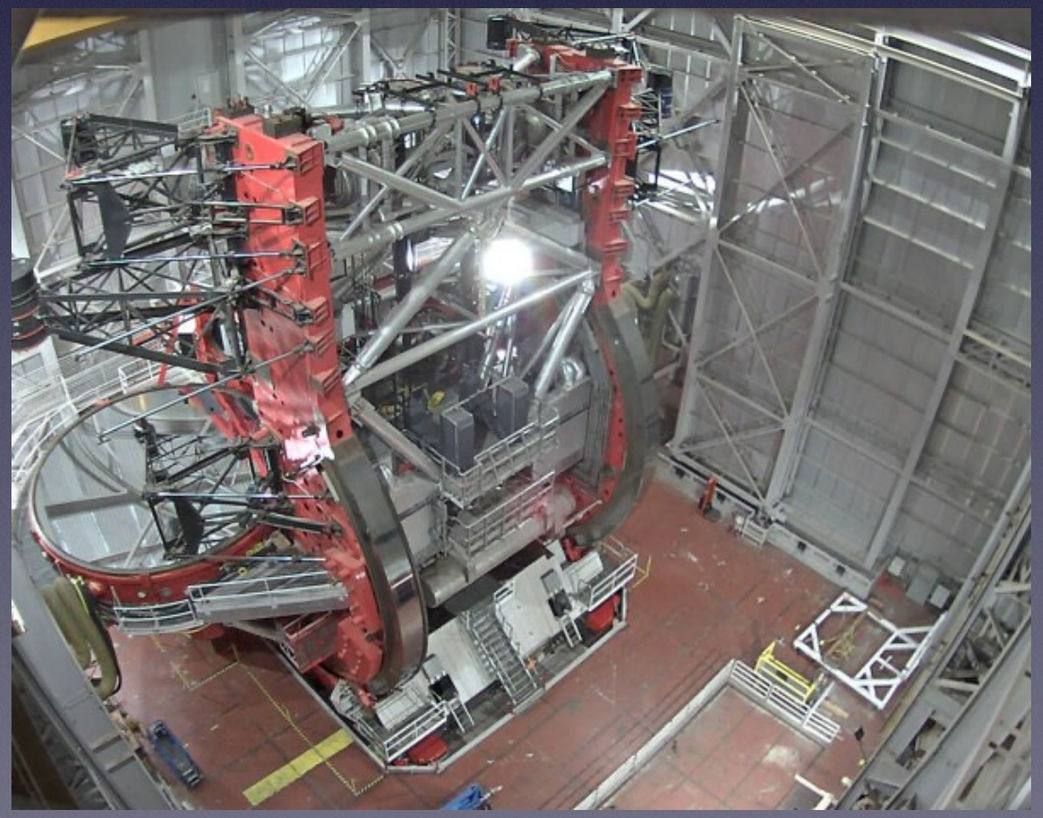
Large Binocular Telescope (LBT)

Eiichi Egami
Arizona LBT Partner Coordinator



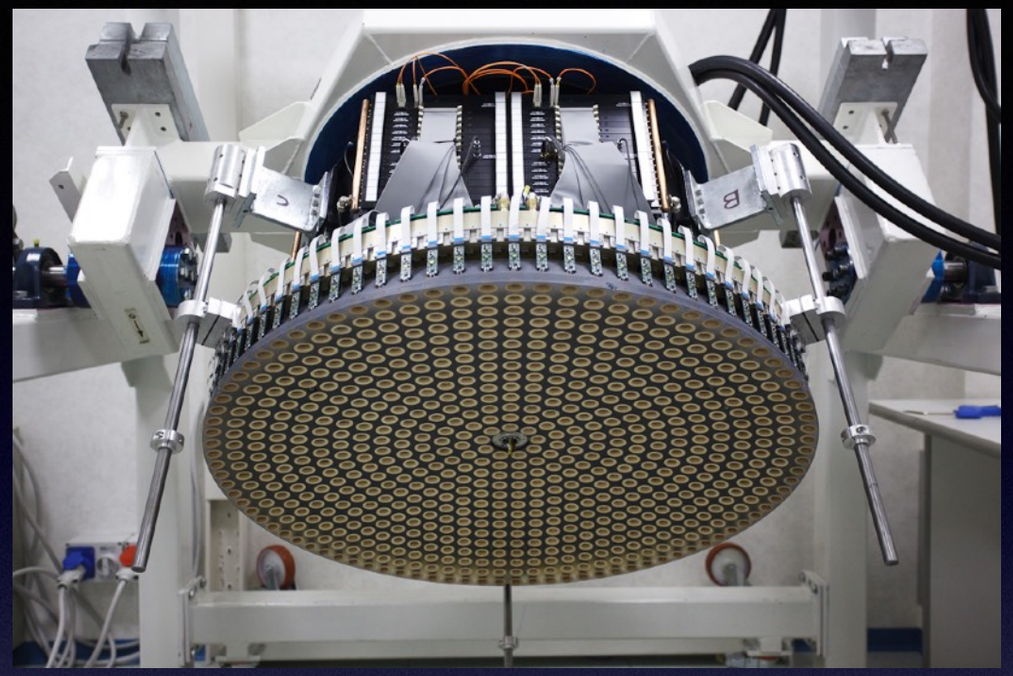




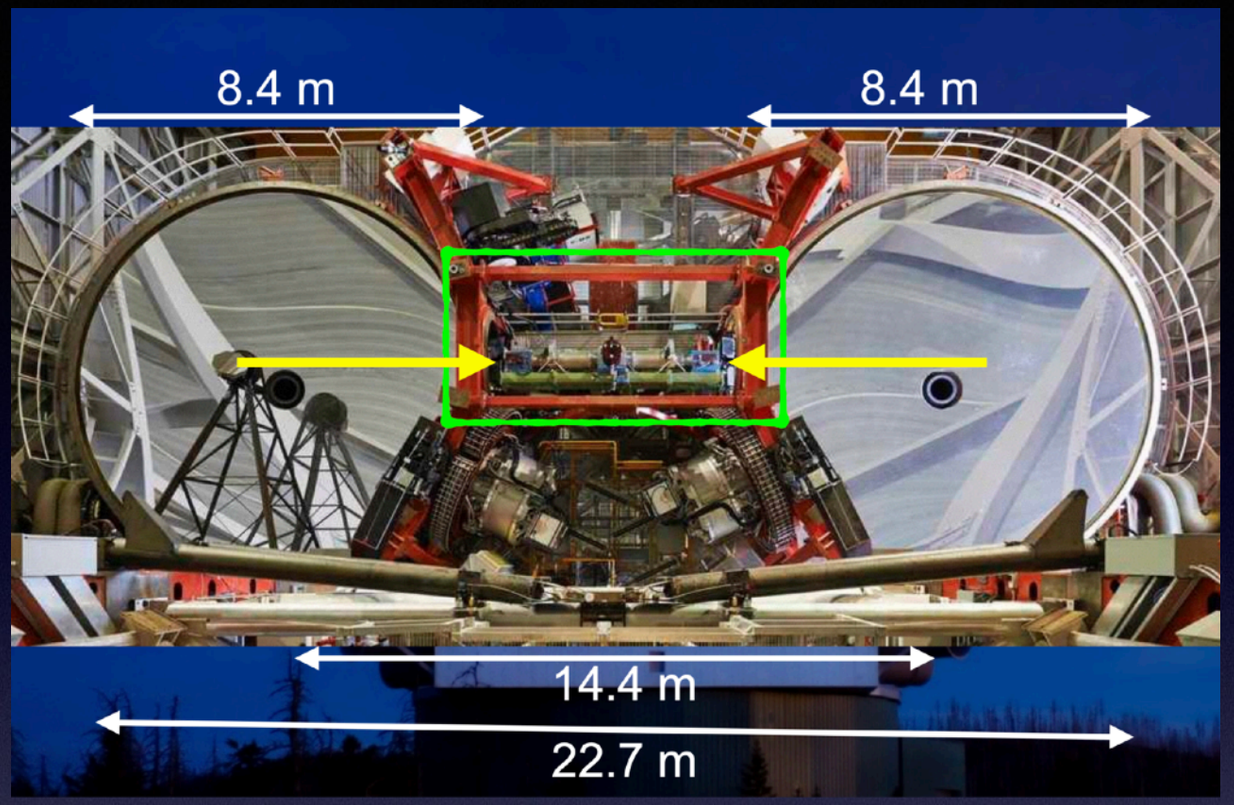


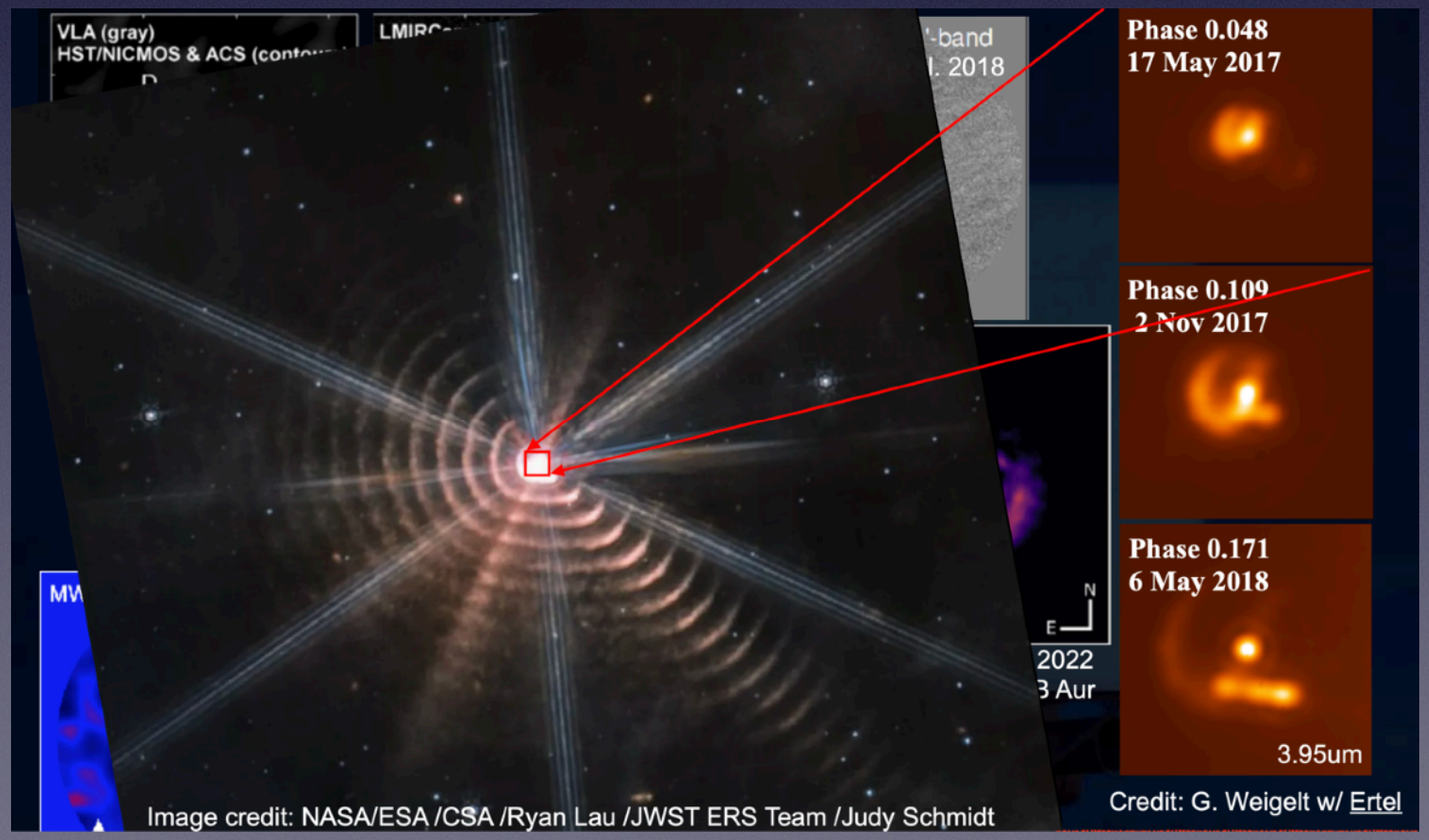
AZ gets ~30 nights/semester

Adaptive Secondary

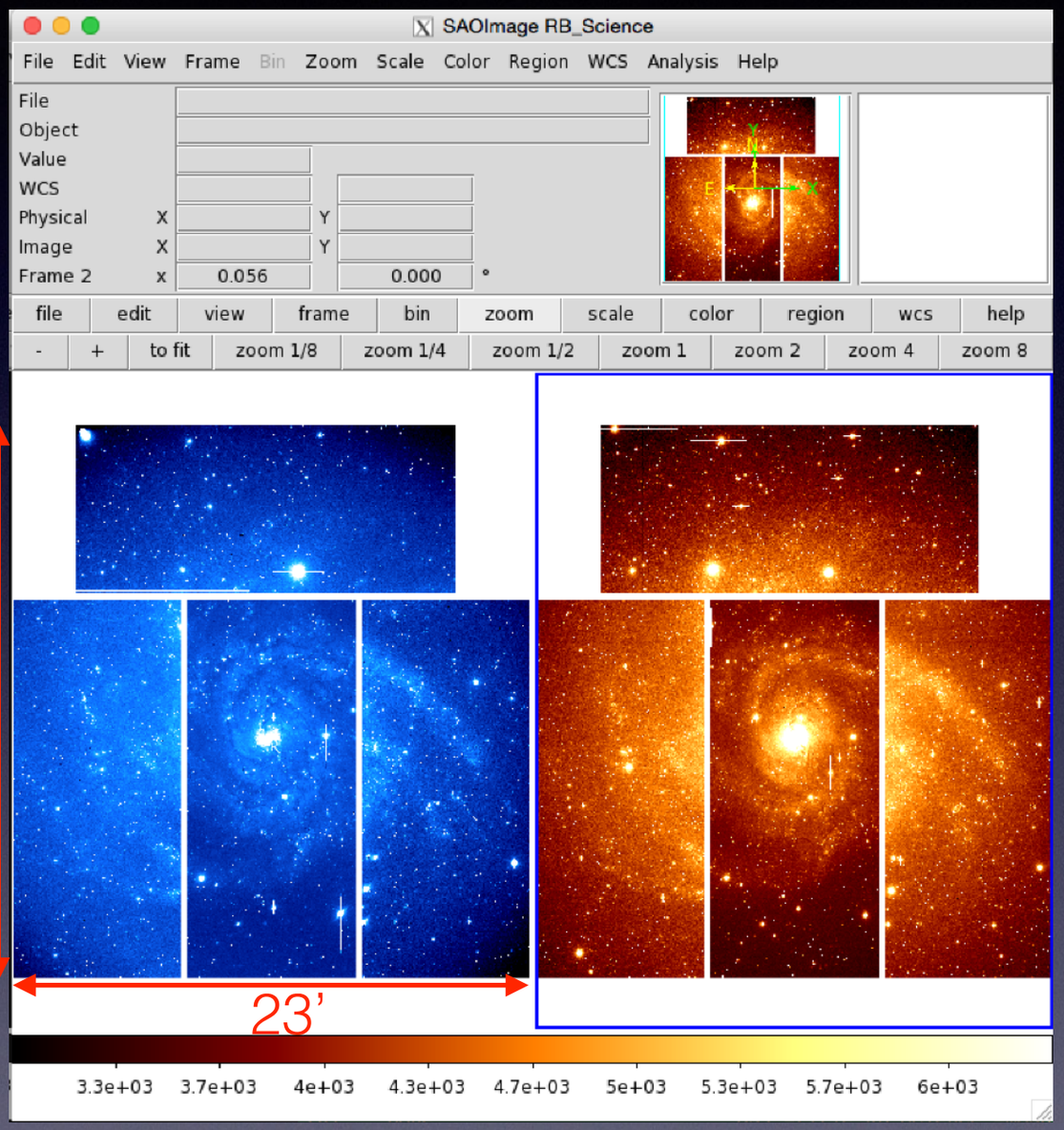


LBTI



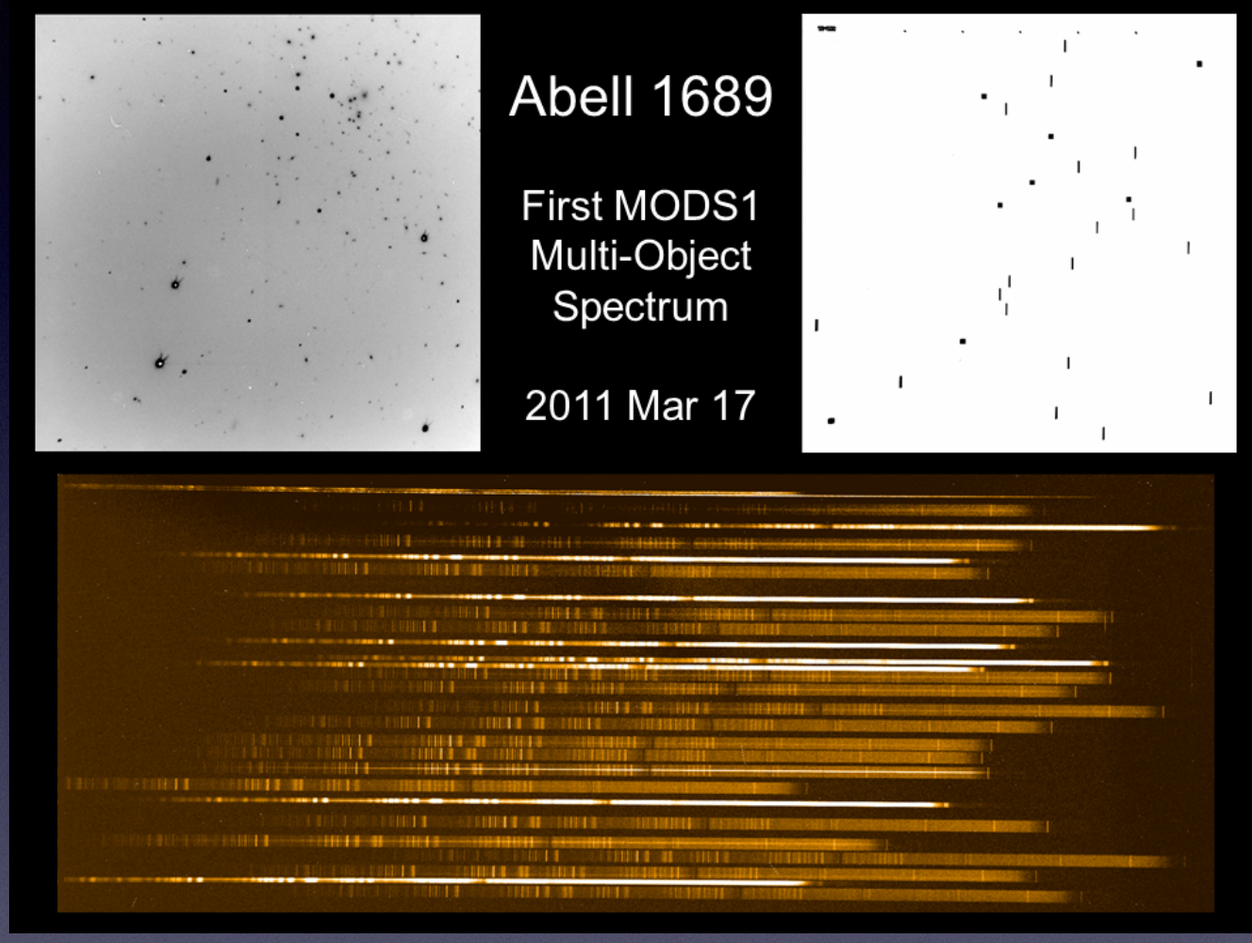


LBC (optical)
Wide-Field Camera



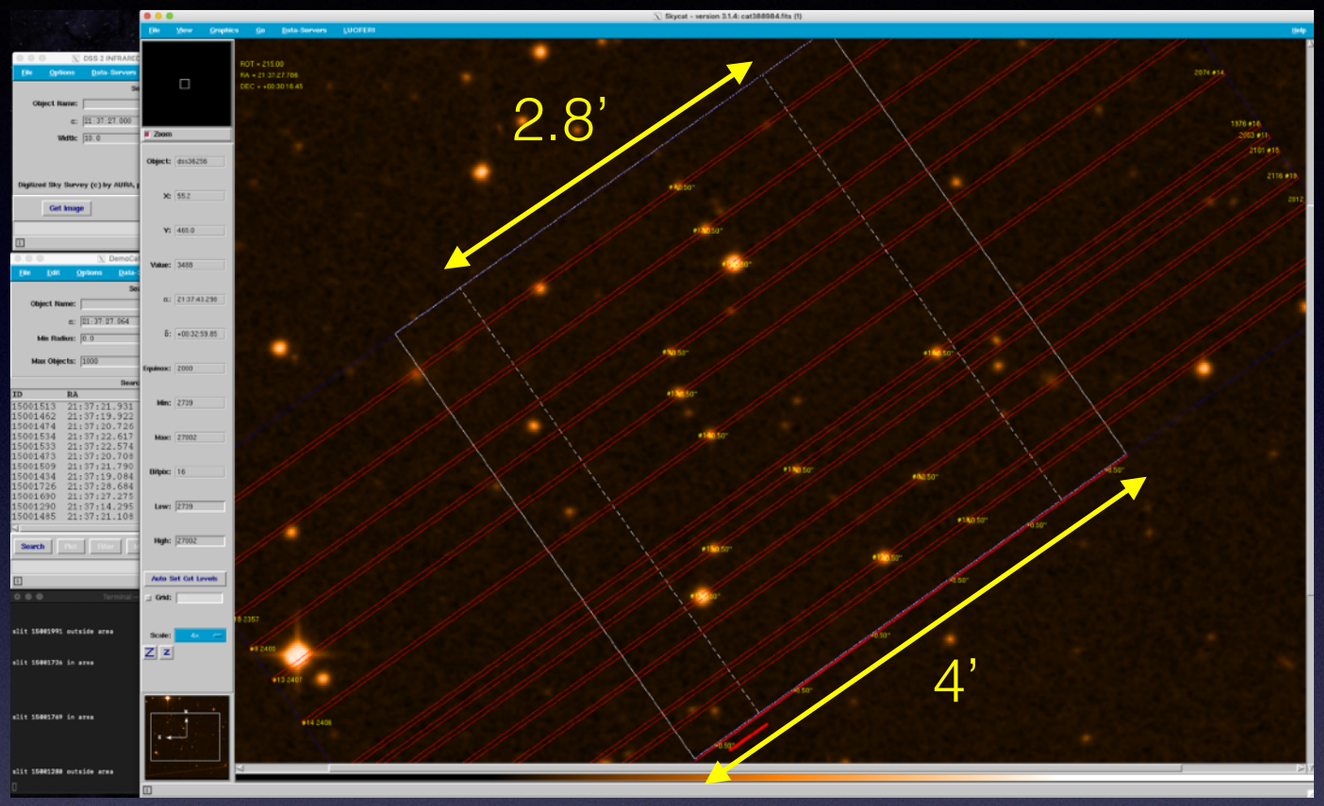
Bessel: UBVRI
Sloan: grizY
Narrow-band filters

MODS (optical)
Imager and MOS



Prism: R~150-500 (0.6”slit)
Grating: R~2000 (0.6”slit)
Blue: 330-600 nm
Red: 500-1000 nm

LUCI (NIR)
Imager and MOS



R~5000-6000 (z, J, H, K; 0.5”slit)
R~2000-2600 (zJ, HK; 0.5”slit)
23 exchangeable masks can be loaded

ESM: Enhanced Seeing Mode
Should always be used with a R<16.5 ref star
<1.2” seeing → 0.2-0.3”
Diffraction-limited AO imaging

Other instruments

PEPSI
(Fiber-fed high-resolution optical spectrograph; R=50,000 - 250,000)

New instruments
(Being commissioned)

SHARK-VIS
SHARK-NIR
iLocater

Go to **lbto.org** for more detail.

2024A Accepted Programs

AZ LBT Time Allocation for 2024A

Total allocated to AZ	35	nights	LBTI	13
Total assigned by AZ	29.6	nights	LBC	4.1
Unassigned (=buffer for bad weather)	5.4	nights	LUCI	3
			MODS	3
Band A (~30%)	2.0	7%	PEPSI	1
Band B (~70%)	27.6	93%	SHARK-NIR	3.5
Band C (filler)	0		any	2

Band A (Goal: ~100% completion)	**2**	nights
Griffin Hosseinzadeh (ToO)	2	any

Band B (Goal: ~40-50% completion)	**27.6**	nights
Steve Ertel (Fine-Tuning LBT...)	2	LBTI
Steve Ertel (Fizeau Interferometry...)	1	LBTI
Virginie Faramaz	4	LBTI
Jacob Isbell	2	LBTI
Feng Long	1	LBTI
Kevin Wagner	3	LBTI
Dennis Zaritsky	3	LBC
Mansi Padave	0.5	LBC
Kacper Wierzchos	0.6	LBC
Weizhe Liu	1	LUCI
Zhiyuan JI	2	LUCI
Nathan Smith	3	MODS
John Hill	1	PEPSI
Al Conrad	0.5	SHARK-NIR
Marah Brinjikji	1	SHARK-NIR+LMIRCam
Justin Hom	1	SHARK-NIR
Sam Ragland	1	SHARK-NIR

Notes:

- 5.4 nights of the AZ observing time is left unassigned, which will be treated as a buffer for bad weathers and any technical problems.

- SHARK-NIR program by Brinjikji et al. uses LMIRCam simultaneously.

- There is no MOS observation.

2024A AZ Mini-Q's

AZ LBT Schedule for 2024A

AZ Mini-Q's	15.7	nights	(15.5 scheduled below)	**Total allocated**	**35** nights
LBTI	15.8				
SHARK-NIR	3.5				
(Unassigned	5.4	- AZ MiniQ: 2.6; LBTI: 2.8)			

AZ non-LBTI Mini-Q's

AZ-Q #1	2 nights	Moon (%)
2/4	(0.5 night)	26.5
2/5	(0.5 night)	17.6
2/6	(0.5 night)	10.0
2/7	(0.5 night)	4.2

AZ-Q #2	5 nights	Moon (%)
3/6		22.3
3/7		13.6
3/8		6.5
3/9		1.9
3/10		0.0

AZ-Q #3	5.5 nights	Moon (%)
5/9	(0.5 night)	5.9
5/10		12.1
5/11		19.8
5/12		28.6
5/13		38.0
5/14		47.7

AZ-Q #4	3 nights	Moon (%)
5/29		54.4
5/30		43.0
5/31		31.9

Notes:

- LBTI queues will be run separately by the LBTI team, so please contact Steve Ertel for the scheduling and execution of LBTI programs.

LBT is undersubscribed in recent semesters!

LBT Proposals and AZ Mini-Q's

- Please sign up for the mailing list az_astro_observer@list.arizona.edu to receive calls for proposals every semester (send a request to egami@arizona.edu).
- LBT proposals need to submitted to two places:
  - UAO TAC: https://mtnops-tac.as.arizona.edu/
  - LBTO: Use the PIT tool available at https://scienceops.lbto.org/proposal-submission/
- Accepted programs will be executed by the LBTO observers in the queue mode (AZ mini-Q's).
  - Band A (~10 nights): 100% completion,
  - Band B (~20 nights): 40-50% completion