



Director's Report

Satoshi Miyazaki

2025-10-29

Presentation for Subaru UM 2025 at Mitaka

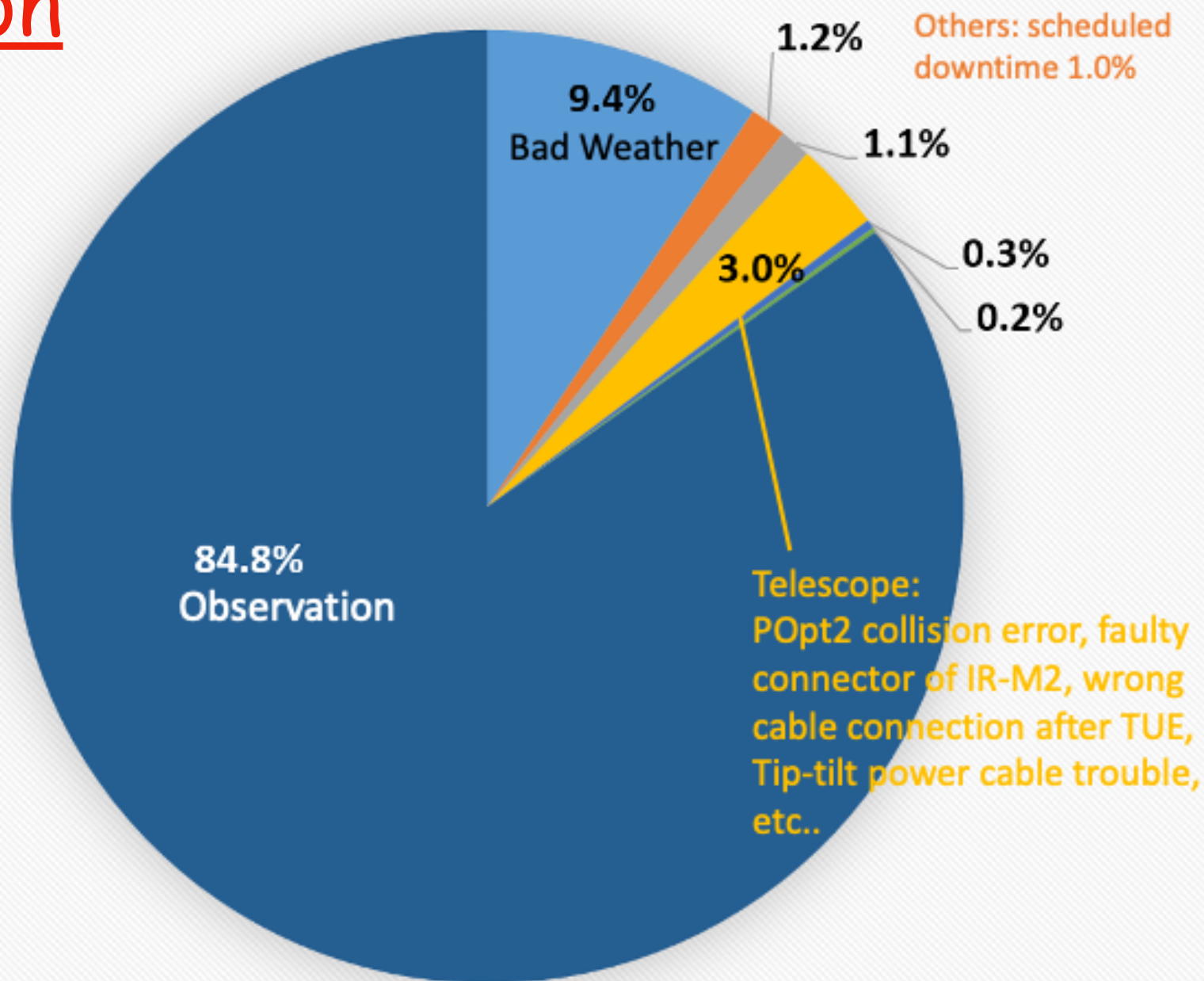
Table of Contents

- Annual Report of Observatory Operations
- Announcements

Operation

CY2025

Subaru Telescope Time: 2025 (1/3/2025 - 10/16/2025)



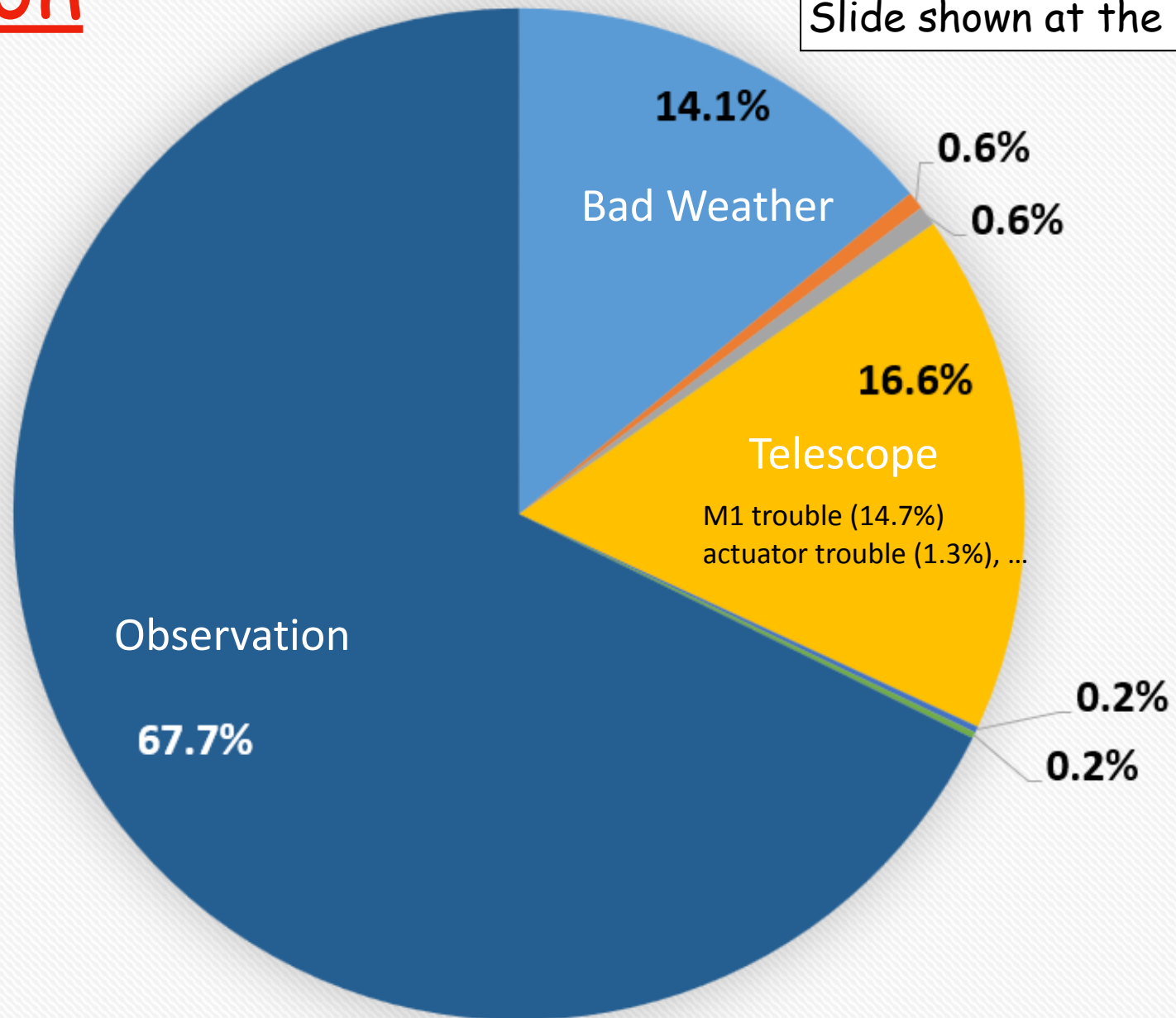
Weather Others Instrument Telescope Gen2 Operation Observation

Subaru Telescope Time: 2024 (1/5/2024 - 1/2/2025)

Operation

CY2024

Slide shown at the last UM



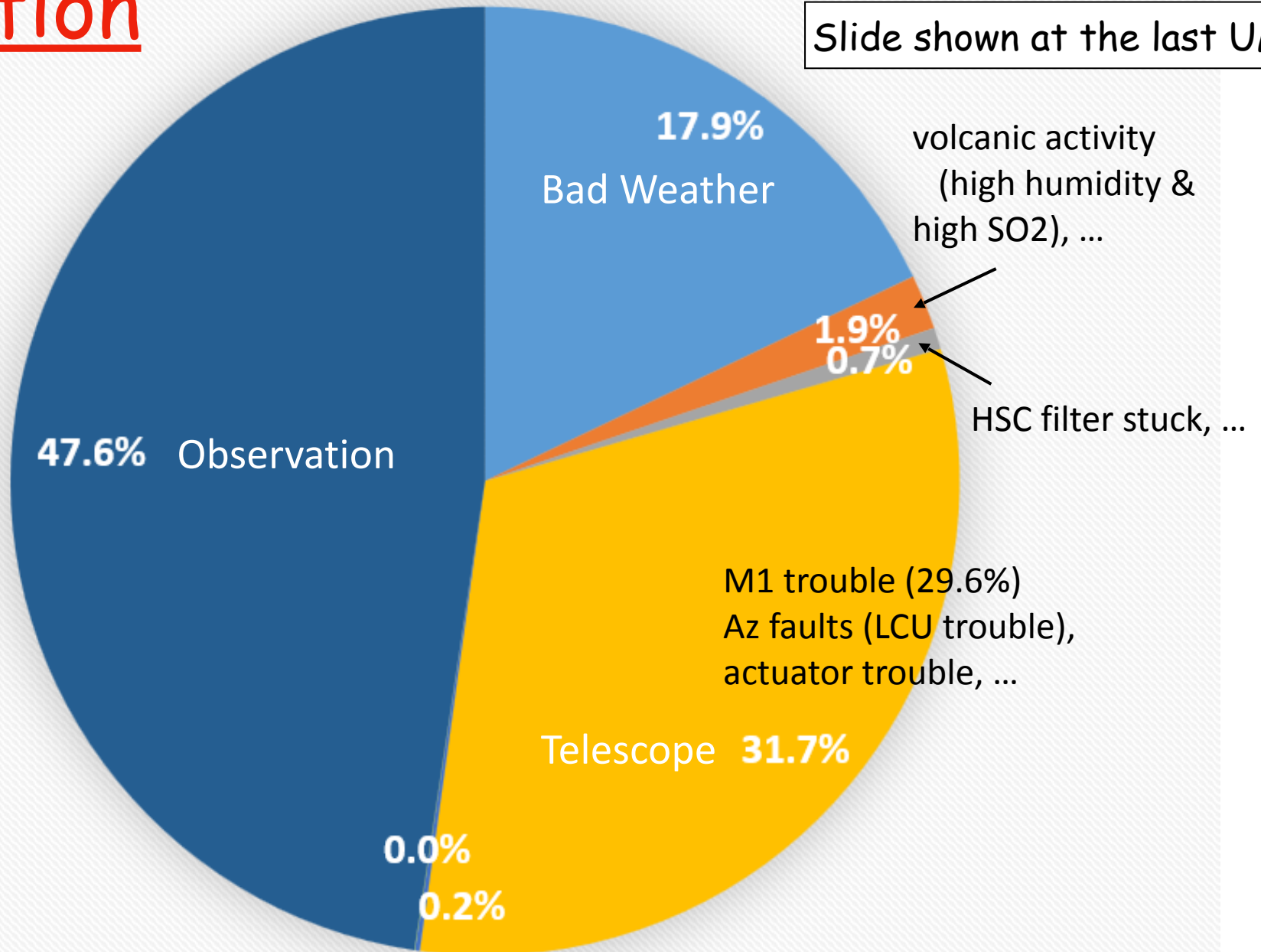
Weather Others Instrument Telescope Gen2 Operation Observation

Subaru Telescope Time: 2023 (1/7/2023 - 1/4/2024)

Operation

CY2023

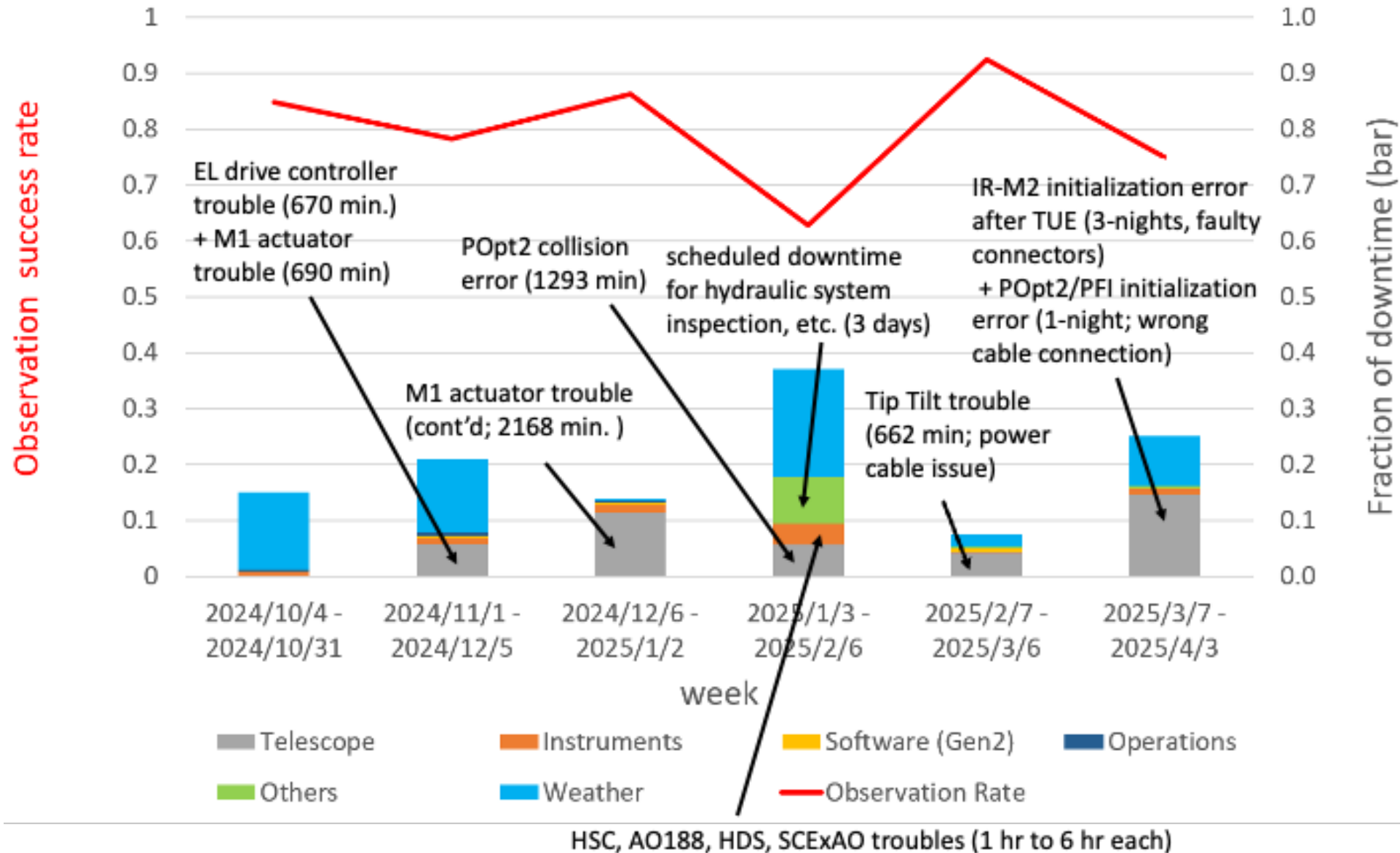
Slide shown at the last UM



Weather Others Instrument Telescope Gen2 Operation Observation

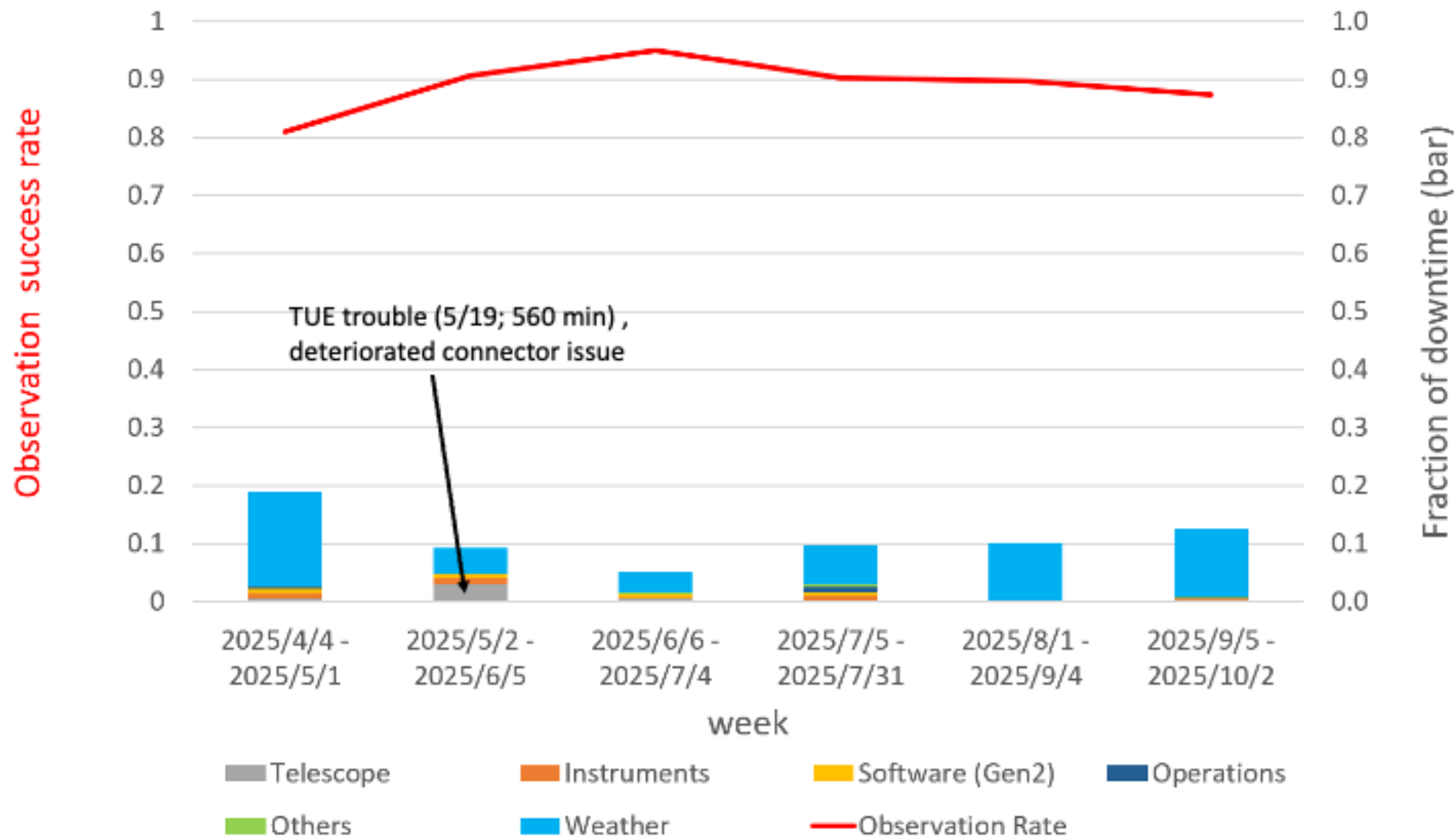
Operation

Telescope Time Statistics (2024/10/4-2025/4/3) FY24 2/2

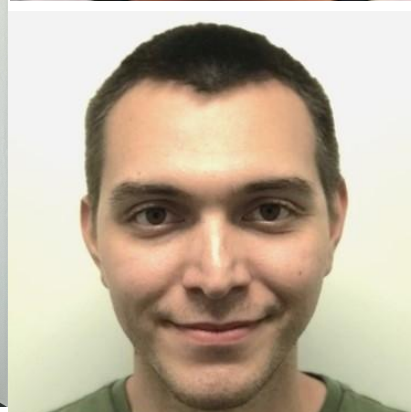
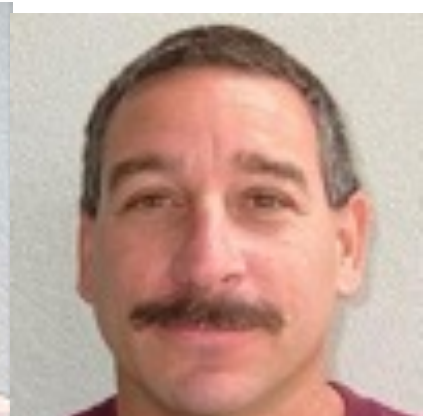


Operation

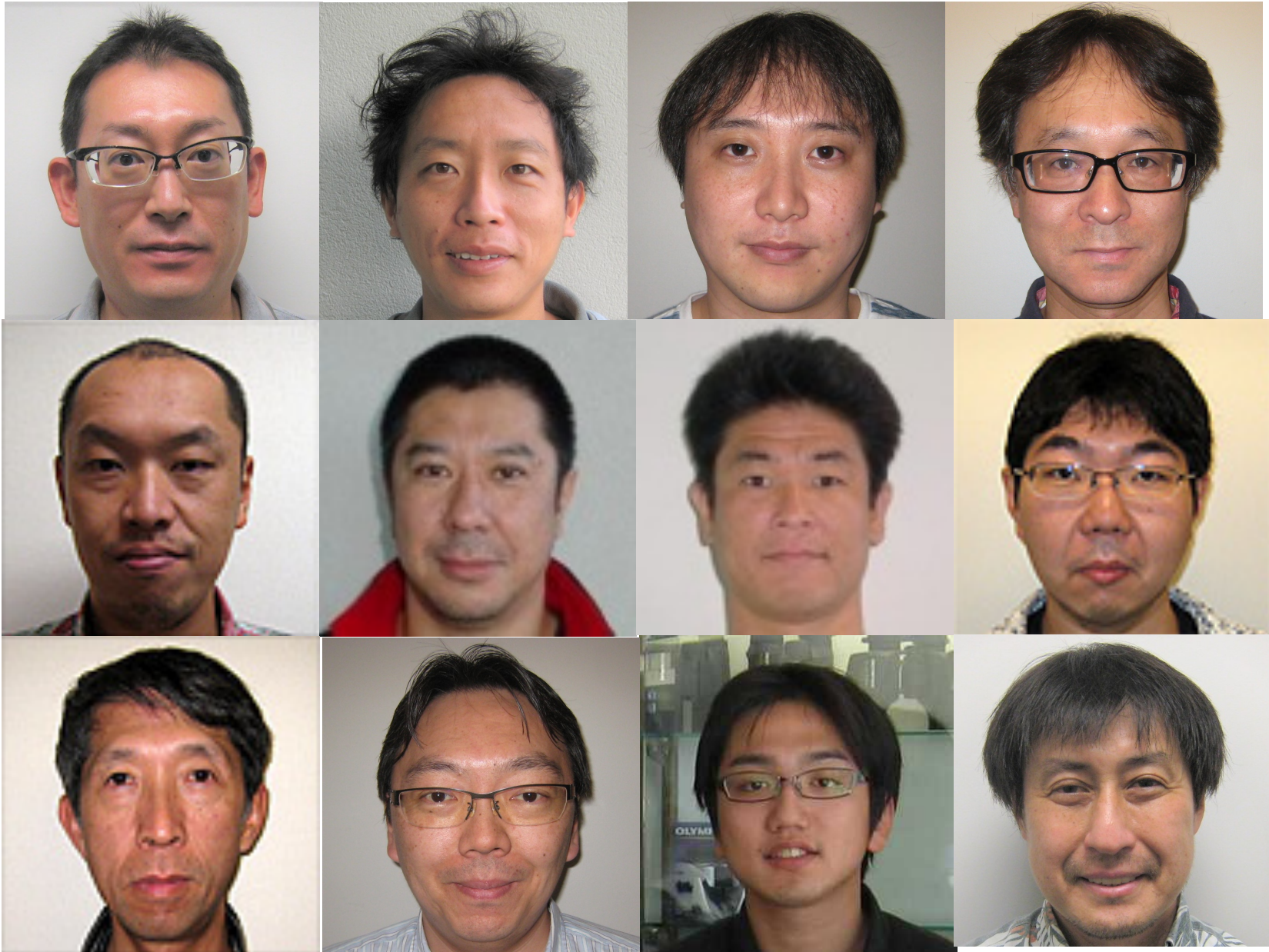
Telescope Time Statistics (2025/4/4-2025/10/2) FY25 1/2



Operation



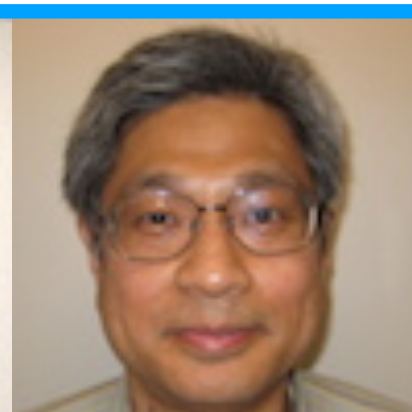
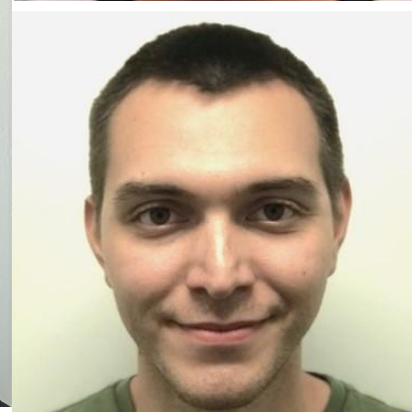
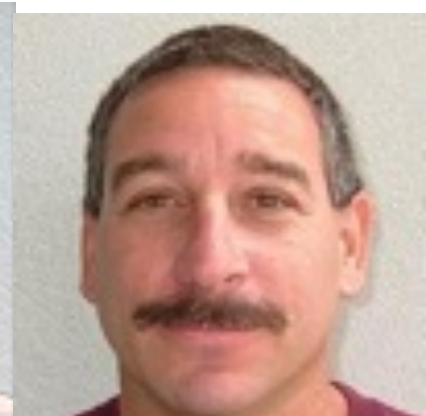
Telescope



Operation

- Significant fractions of NAOJ staff must return home by summer next year because of the newly adopted rule of permitted stay period.
- Many of them keeps Subaru FTE at Mitaka for the support of operations.
- However, the recovery time may take longer.

Operation

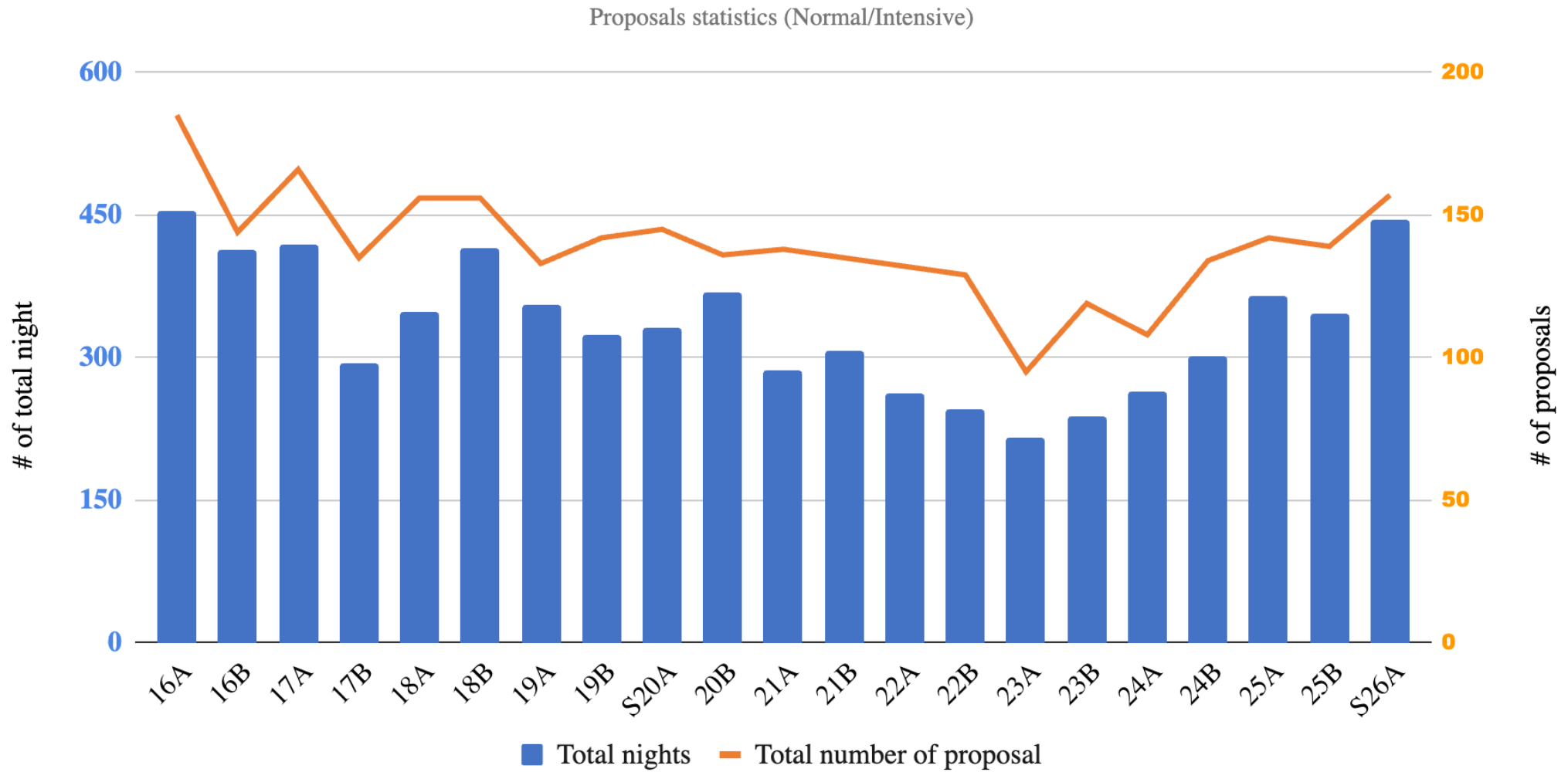


Telescope



Operation

Proposal Statistics



Thank you PFS !

Operation

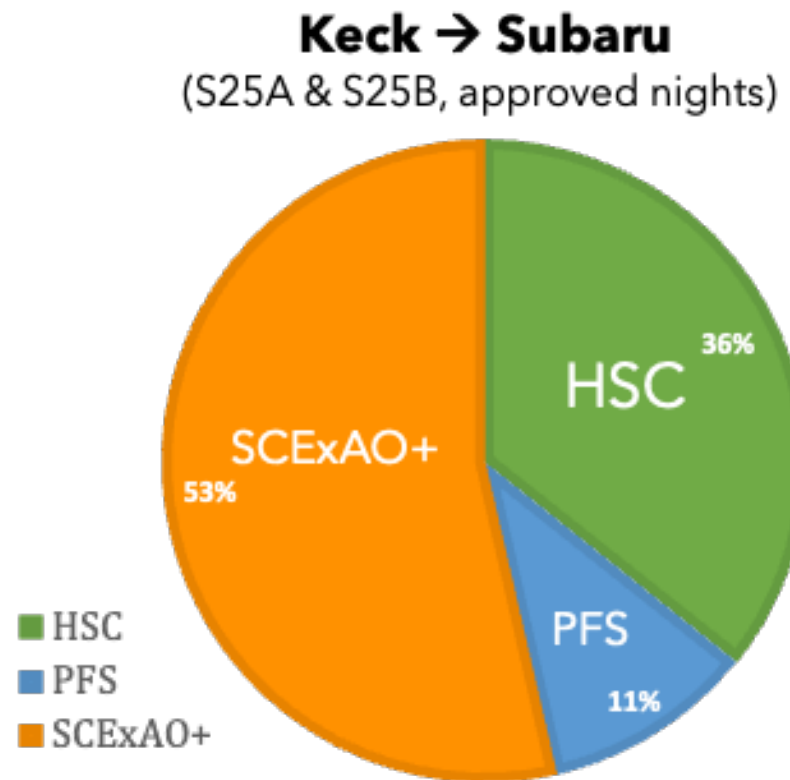
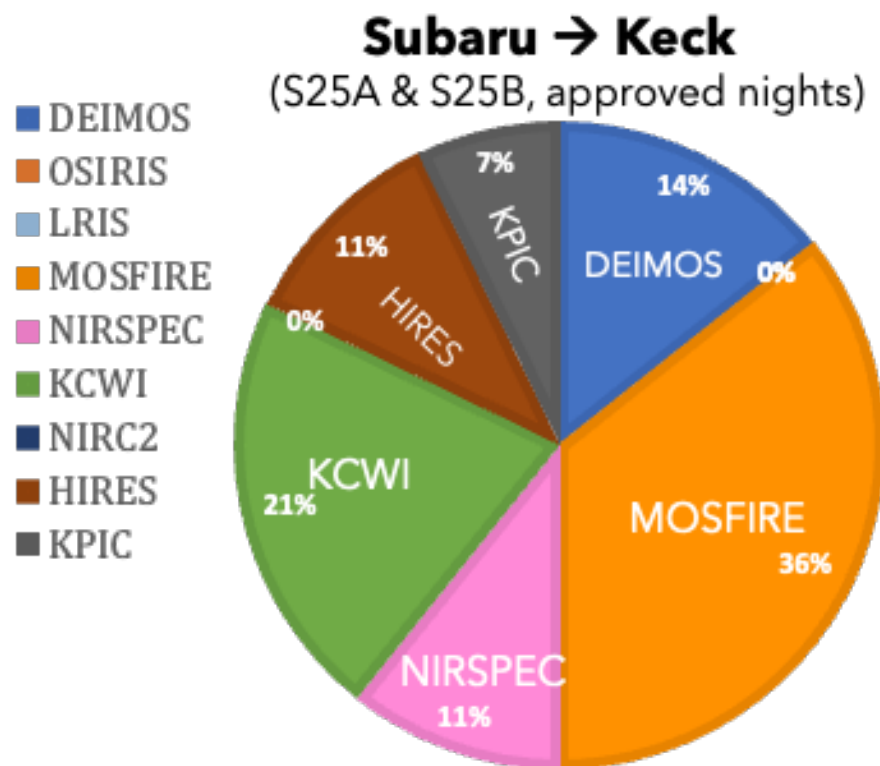
- Call for Proposal of S26A for Normal/Intensive/HSC Queue mode Filler/PFS Community Filler programs is closed on September 2 (JST).

Normal/Intensive: Total 157 proposals
(normal 155, intensive 2) 444.92 nights (= 2.5 competition rate)
PFS 32(116.0n): classical 10 / queue 22
HSC 27(102.3n): classical 10 / queue 15 / intensive1
FOCAS 21 (32.5n)
HDS 19 (31.5n)
MOIRCS 13 (26.7n)
IRD 12 (62.5n): ngs 7 / lgs 3 / reach 1
SCExAO 11 (12n)
IRCS 5(9n): ngs 1/ lgs 2 / nirwfs 2
ToO 3 (5n)
Time Exchange 26 (49n): Gemini 12 (23.5n), Keck 14 (25.5n)
Filler: PFS 9, HSC 6

Operation

Subaru-Keck exchange summary

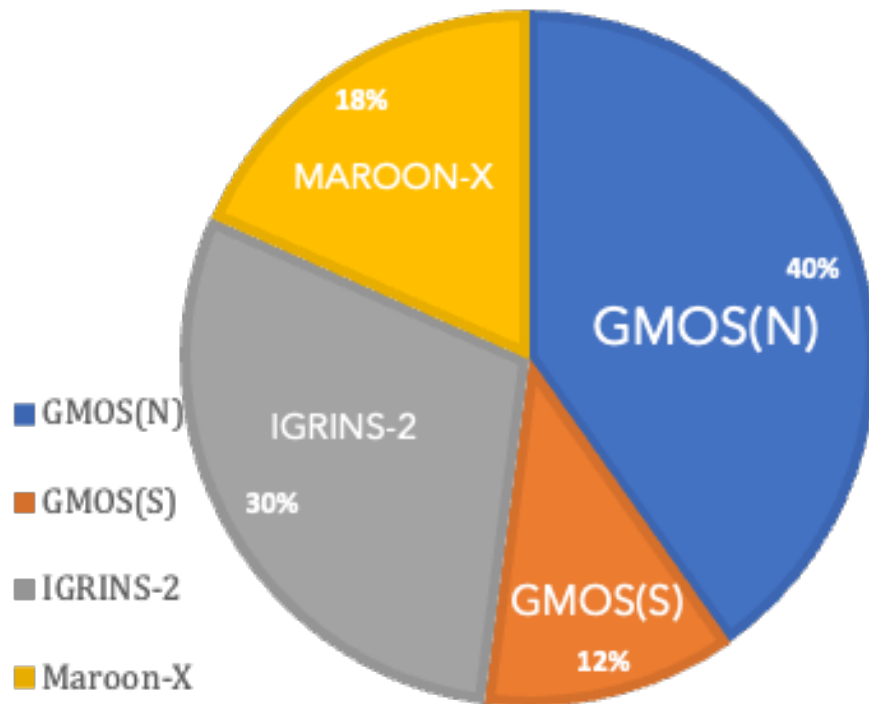
We exchanged **5.5 nights** in S25A, **8.5 nights** in S25B with Keck.



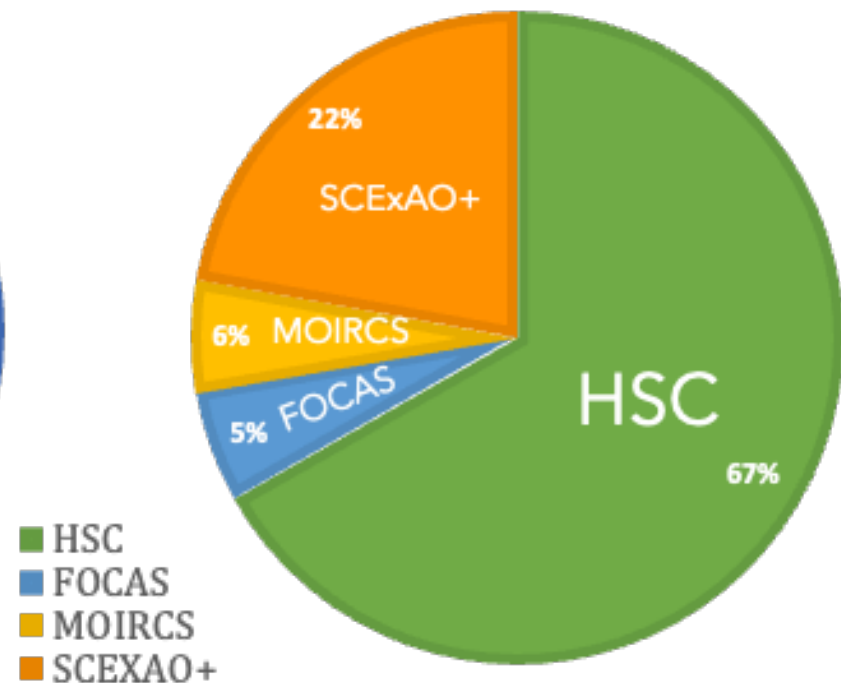
Operation

Subaru-Gemini exchange summary

Subaru → Gemini
(**6.9 nights approved** in S25A & S25B)



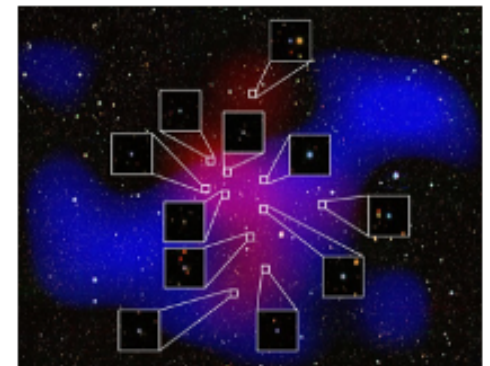
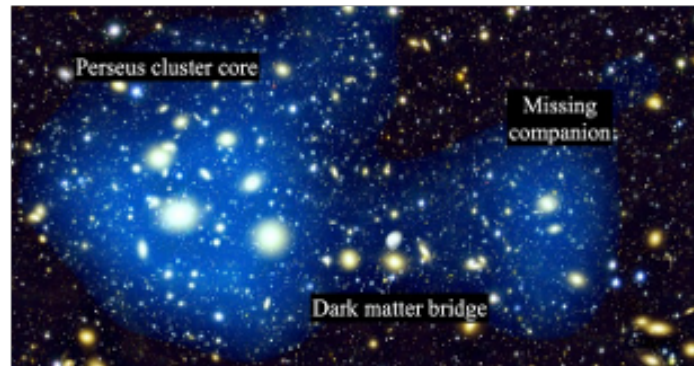
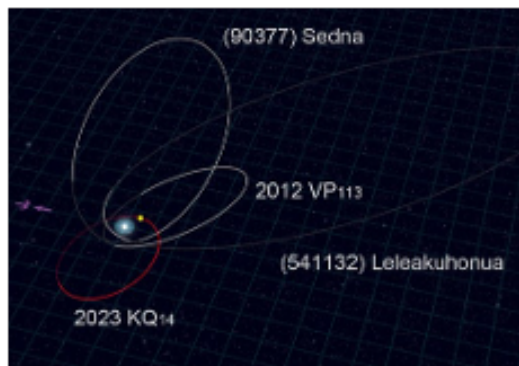
Gemini → Subaru
(**7.8 nights approved** in S24A & S24B)



Science Highlight

Subaru Press/Web Release 2024

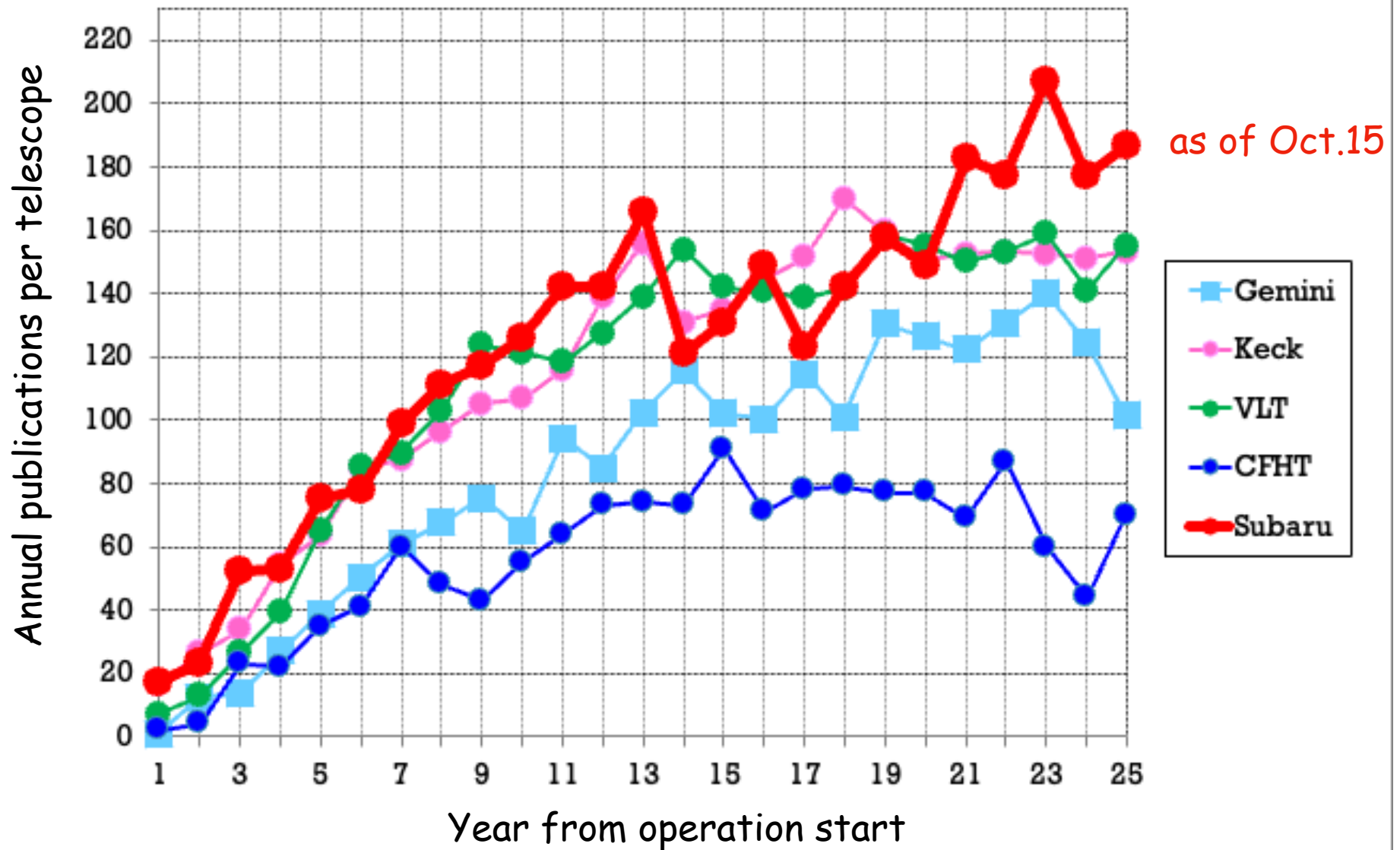
1. **Subaru Telescope Observes Near Earth Asteroid 2024 YR₄** (February 24)
2. **Astronomers Uncover the Missing Merger Companion and Dark Matter Bridge** (April 20)
3. **The Giant Supermassive Black Hole Cluster Discovered in the Distant Universe** (June 2)
4. **Subaru Telescope Discovers "Fossil" of the Early Solar System** (July. 14)
5. **Supermassive Black Holes Shrouded by Dust in Early Universe** (September 8)
6. **Supermassive Black Holes Shine in the Most Distant "Dying" Massive Galaxies** (September 17)
7. **Discovery of a Brown Dwarf Orbiting a Red Dwarf through the Synergy of Ground- and Space-Based Observatories** (October 20)



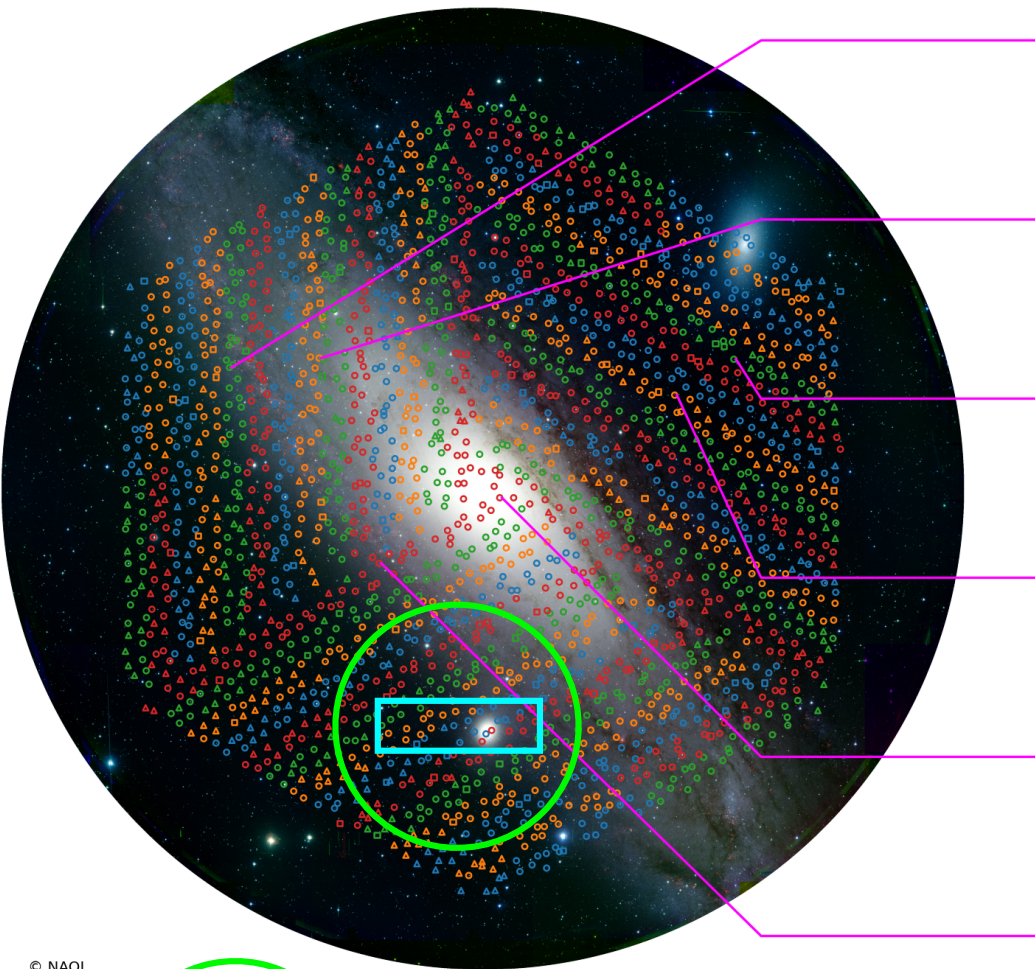
Solar system **Exoplanets** **Stars** **Galaxies** **Cosmology** **Others**

Publications

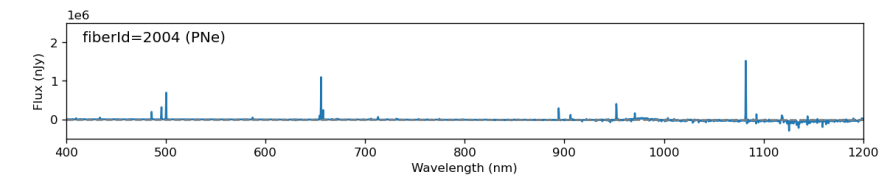
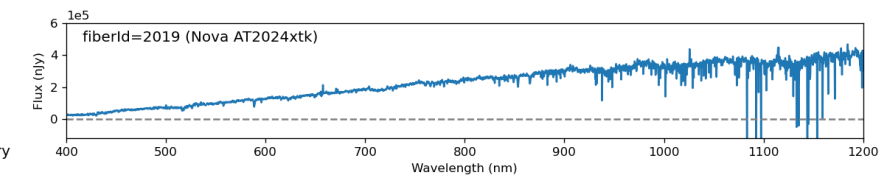
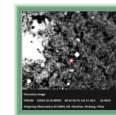
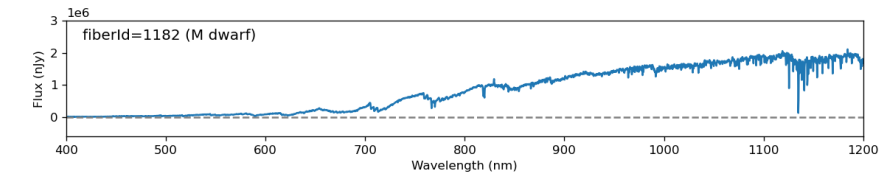
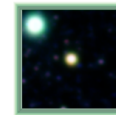
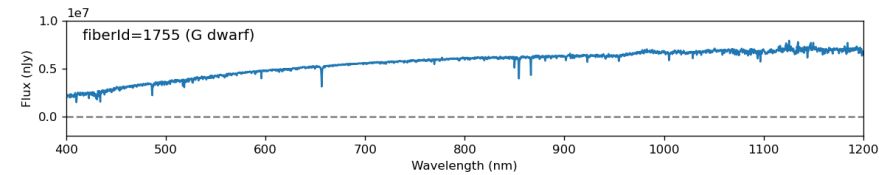
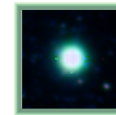
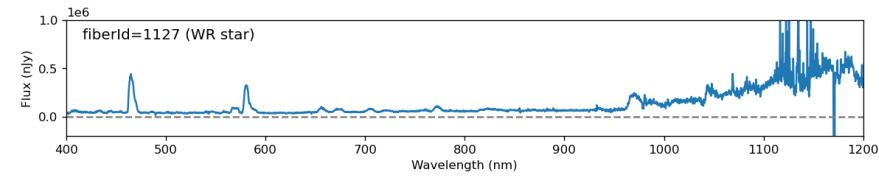
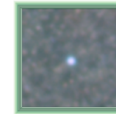
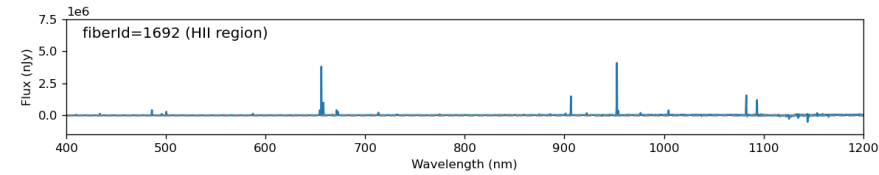
査読論文出版数の推移(他の天文台との比較)



PFS on the sky



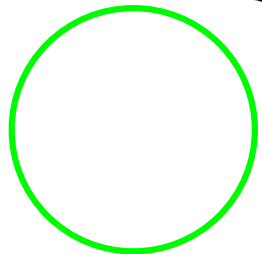
© NAOJ



Xingming Observatory

400 nm

1200
nm



VLT MOONS

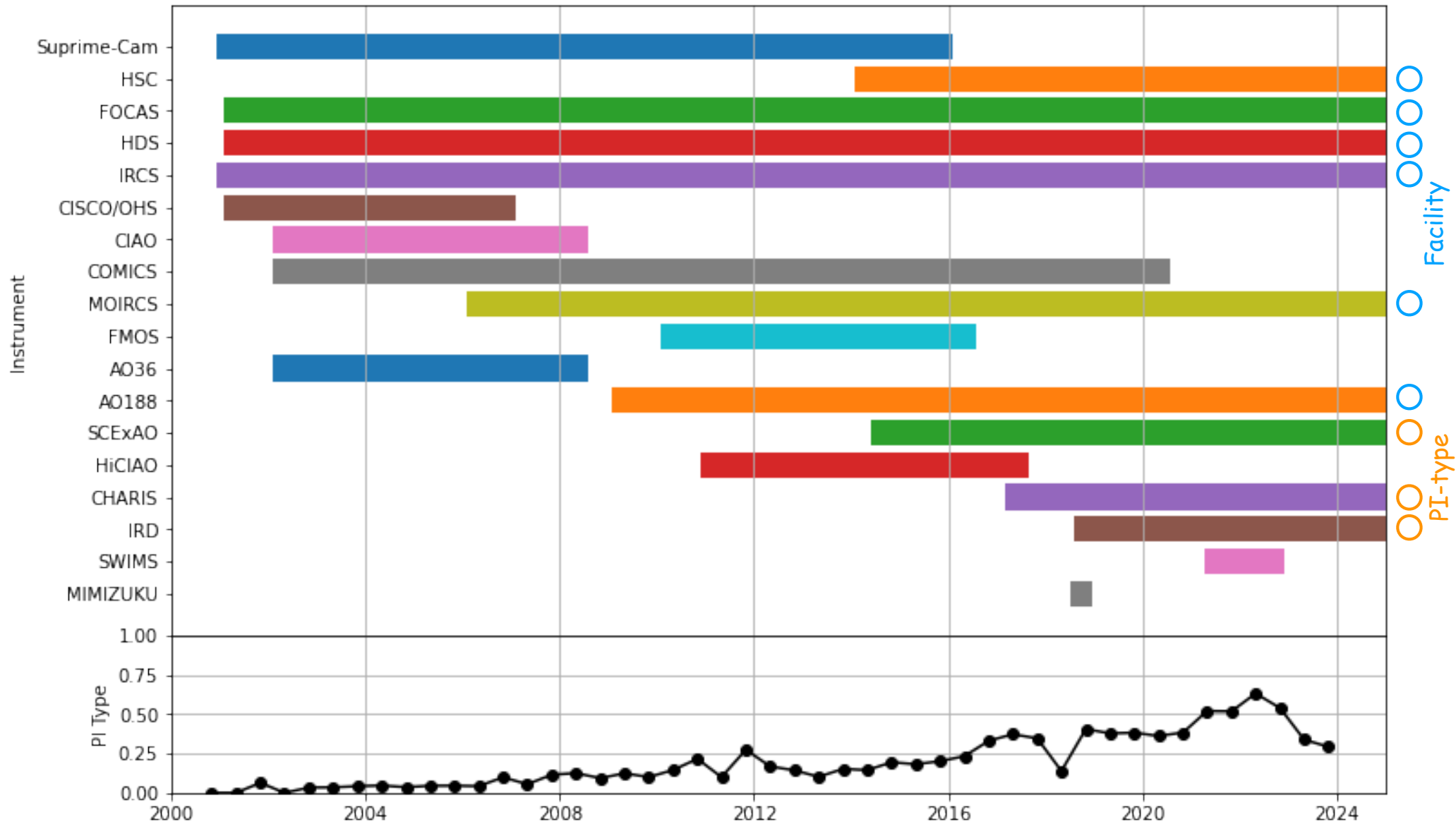


Keck DEIMOS

PFS in operation

- 1st run March 19 - April 3: 16 nights
 - 2nd run May 19 - June 1: 13 nights
 - 3rd run June 17 - July 2: 15 nights
 - 4th run Sep. 11 - Sep. 30: 20 nights
-
- 5th run Nov. 10 - Nov. 30: 21 nights
 - 6th run Jan. 7 - Jan. 26: 20 nights

Subaru Instrument Suite



PI-type Instruments

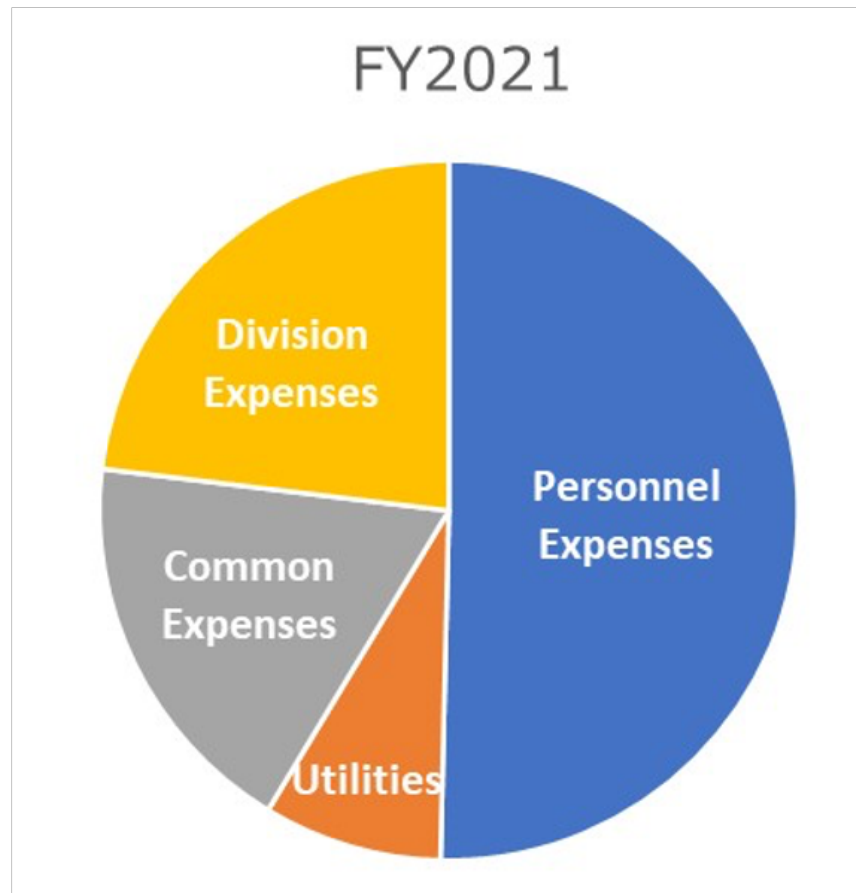
- Accepting PI-type instruments will enable new opportunities in many ways.
- Responding to new PI-type instruments requires observatory's resources especially human ones.
- Balance needs to be discussed.
- Subaru has "long term" PI-type instruments (SCExAO and IRD)
 - The observatory spends less resources but the supports for general users might be limited.
 - There is a risk of its termination when PI's group leaves.
 - Community and the observatory have to decide how to deal with these.

More Subaru Advisory Committee involvements are expected.

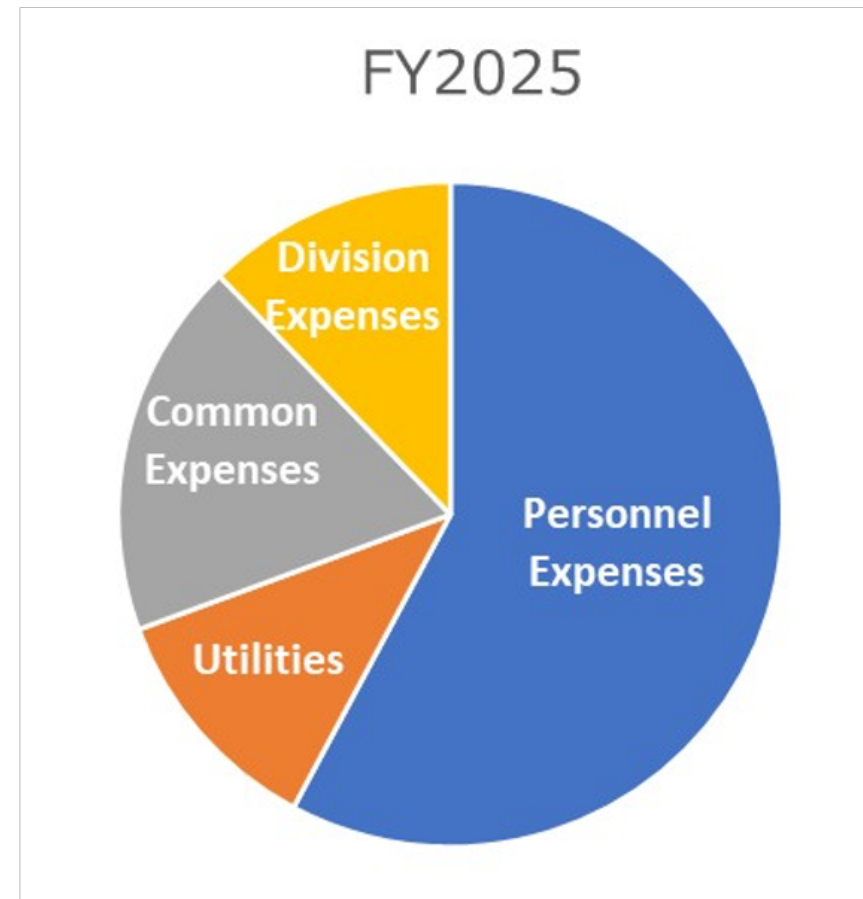
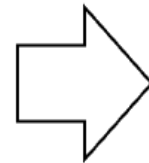
Business (Finance)

Breakdown of Annual Budget

Regular budget of Subaru, PFS and GLAO A project



Total: 15.6 oku JPY



Total: 13.9 oku JPY

Amount is getting smaller and ...

Operation Budget Summary

- Government funding for “the regular operation” is almost stays the same in JPY thanks to their understanding. However, the JPY/USD exchange rate and the inflation is continuously reducing the degree of freedom of operations.
- Reduction of electricity bill is urgent.
- Identifying international partners is crucial.

Table of Contents

- Annual Report of Observatory Operations
- Announcements

Announcement

Education at Subaru

- On-site observation for student PI programs.
 - Strong interests from young students - increasing the number of proposals.
- OISTER student internship program (started in FY2024).
 - 2 students in FY2024, 1 student in FY2025 (visiting Hawaii soon in Nov 2025).
- Rebooting the "Observatory Experience" program for undergraduate students (学部生体験企画) in FY2025, as announced in January.
 - Call for Students will be issued soon.
 - The program will be in late Feb or March.



Two graduate students stayed in Hawaii as OISTER intern in FY2024



Taiken-kikaku in FY2017

