(Subaru Users' Meeting FY2017, 2018/1/19)

Operational framework of "100 nights" for WFIRST-Subaru synergistic science ~ from observatory ~

Yusei Koyama, Ikuru Iwata, Michitoshi Yoshida

(Subaru Telescope)



Premise

- Program(s) for the 100 nights should be decided competitively – i.e. proposal + peer review process.
- 2. 100 nights should be used for collaborative WFIRST-Subaru science cases which attract both Subaru and WFIRST communities.
- 3. Most of the 100 nights should be devoted for medium or large programs which cannot be done with normal open-use programs.

Possible framework (example)

Your comments are very important for the observatory to prepare the Call for Proposals.

- Ex.I) Only large programs. Call for proposal in ~2023.
 - Assume one 100-night program, or a few x ~30 nights which enhance WFIRST survey legacy value & attracts both WFIRST and Subaru community.
 - Similar to SSP review. 100 nights will be uniformly distributed over ~4-year.
- Ex.2) Large (~80 nights) + small/GO (~20 nights)
 - Large = a few x 20-40 nights (same as ex[1])
 - Small/GO = $5 \sim 10$ programs with $\sim 1-3$ nights
 - Assume science cases which require both Subaru and WFIRST GO observation.
 - Call for proposal every year?
 - Can secure some block of WFIRST GO time?
- Ex.3) Large (70 nights) + small/GO (15 nights) + photo-z (15 night)
 - Large = a few x 20-40 nights (same as ex[1] & [2])
 - Small/GO = $5 \sim 10$ programs with $\sim 1-3$ nights (same as ex[2])
 - Photo-z = Critical for WFIRST photo-z calibration
 - Need this special category? Can be included in "large" programs?

Timeline (example)

2017/12: WFIRST-Subaru workshop

2018/01: Subaru Users Meeting FY2017 \rightarrow share rough idea of the framework

(continue discussion on operational framework)

- 2019/01: Subaru Users Meeting FY2018 \rightarrow almost fix the framework
 - 2020 Cience team: work on proposal preparation
 - 2021 Observatory: fix the selection process
- 2022/01: Subaru Users Meeting FY2021 \rightarrow fix & announce the framework
- 2023/01: Call for proposal
- 2023/06: Proposal deadline
 - (proposal review)
- 2023/11: Announce the approved program(s)

2024
2025 - - - - WFIRST launch
2026
2027
2028
2028
possibility to start from ~2024?
Small/GO program, photo-z calibration (20 nights over ~2-yrs)

Discussion Items

- 0. What is our real benefit from this 100-night program?
- I. 100 nights should be devoted only for large programs (e.g. several x intensive class)? Or, secure some fraction for smaller programs?
- 2. Can we accept dark time only request? Or, balance lunar conditions (considering the impact on open-use)?
- 3. Only one call-for-proposal around 2023? Or, several times? Better to secure time for follow-up observation of WFIRST discoveries?
- 4. Selection process? Apply same procedure as SSP? How to manage selection committee (US+JP) and SAC/TAC?
- 5. 100-night WFIRST-Subaru program is attractive for potential partners?