

# Proposal Guideline for Development in Nobeyama Campus

June 2023

Updated: April 2024

The Nobeyama campus is used for an operation site of the world competitive telescopes that provide observation opportunities to researchers in the world more than 40 years. This accomplishment is obviously realized with consistent efforts in the development of instruments and observing modes, and the development activities are essential to train human resources who will lead next generation large projects as well. Considering the fact that the Nobeyama campus is still the most appropriate place in Japan to promote development activities, the NRO believes that opening its opportunities to researchers is crucial for the Japanese radio astronomy community.

Based on the objectives of promoting Japanese radio astronomy activities, the NRO accepts proposals for development using the Nobeyama campus including telescopes and instruments to be installed at the campus, and instruments, software, and/or new observing modes for the Nobeyama 45-m telescope (hereafter, development programs).

Proposals will be not reviewed scientifically, but reviewed in the point of technical aspect such as:

- Program must be completed within available NRO resources (space, electricity, manpower). Already on-going programs take priority. Note that, if more than one proposal requests the same resources, and NRO cannot provide the resources for all proposals, then all proposals will be rejected. Therefore, NRO recommends proposer to contact NRO in advance.
- Budget acquisition plan, the number and skills of investigators, and annual plan must be reasonable.
- Decommissioning plan (at the end of the program as well as at the end of the observatory) must be included.

Proposer must not apply for budgets before acceptance of the program. Accepted proposal is valid for one year. If your proposal is accepted but your budget acquisition of the year is failed, you have to re-submit your proposal at the next year deadline of the proposal.

After the completion of the development, projects can be reviewed an Installation Review that is required before installing instruments to the Nobeyama campus. Reasonability of the installation plan will be checked. After the installation, the CSV observations can be conducted in the charged telescope time scheme for the 45-m telescope instruments

and methods. After the completion of the initial CSV measurements, projects can be reviewed an Acceptance Review. In the acceptance review, the performance of the instruments and operation plan will be reviewed. Instruments that pass the acceptance review will become facility instruments that will be available to all 45-m telescope users with risk shared, seasonal CSV measurements will be performed by the NRO staff, and the maintenance costs will be shared by the project and NRO.

NRO provides infrastructure, electricity, and interface information to the proposer and if necessary, will support installation of the proposer's new instrument into the Nobeyama campus within the available resources. NRO, however, will not support expenses for the proposer's instrument/software development program, travel cost, maintenance cost of non-NRO properties after installation, and telescope time cost. NRO will help in consulting regarding technical and software interface if possible, but the proposer takes the responsibility to secure designing, manufacturing, testing and commissioning workflow including human resource plan.

NRO plans to review the status of development every spring (April-May) by holding a NRO development workshop. NRO may order to terminate or suspend the development program, if any of serious problems is found such as

- schedule delay
- technical infeasibility
- shortage in budget
- shortage in human resource
- non-compliance with NAOJ regulations including safety regulations
- problems on the Nobeyama radio Observatory side (telescope problem etc.).

### **Proposal Forms**

Proposals should contain the following contents and be written in Japanese or English. The page limit is 8 pages in A4 format with 12 point font, excluding the cover form. For lighter development, a shorter application with 3-5 pages suffices.

1. Cover letter
  - Subject
  - Name of investigators and their institutions
  - Contact information (e-mail address and telephone number)
2. Proposal
  - scientific background, science cases

- details of plan for your instrument, feasibility study
- budget planning, organization, schedule, constraint, etc
- 3. Interface Control Documents (whichever applicable)
  - Physical Interface (space, screw holes, etc)
  - Electric interface (power supply, voltage, power consumption)
  - Thermal interface (heat dissipation, HVAC requirement)
  - Logical interface (monitor & control)
  - Data interface (parameters for observing script, output data format, data quality)
  - etc
- 4. Integration Plan, Commissioning Plan, and Operation Plan
  - Names, tasks, work plan (period)
  - Maintenance plan (including spare parts)
- 5. Decommissioning Plan
  - Definition when the program finishes
  - Decommissioning plan for the program end or observatory end

### **Proposal Evaluation**

The proposals will be evaluated by the NRO staff.

The review process will take about two weeks in total after the deadline.

### **Submission Deadline for FY2024**

Spring: May 15, 2024 (17:00 JST)

Summer: Aug 5, 2024 (17:00 JST)

Winter: Dec 19, 2024 (17:00 JST)

### **Submission of Proposals**

- The file size of the proposal should be under 20 MB.
  - If you prepare more than one files, please archive them (e.g., tar.gz or zip) and upload a single file.
- Uploader URL: <https://y2.nao.ac.jp/index.php/s/bo4JnXyQBxaRCw8>
- NRO will send you an email for confirmation of receipt within 3 working days. If you do not receive it, please let us know that.

### **Contact Information**

[nro-devel-proposal@ml.nao.ac.jp](mailto:nro-devel-proposal@ml.nao.ac.jp) (NOTE: Do not send your proposal via email)