

# Letter of Intent to the Science Roadmap of NAOJ

Nov 8, 2023

Kentaro Motohara (SOC Chair), on behalf of SOC members

# Trial of the Proposing Process to the Roadmap of NAOJ

1. SOC called for **letters of intent (Lol)** for science cases of the NAOJ science roadmap on July 28, 2023 .  
The science case is expected to be implemented during the 5th Mid-Term Objective(第5期中期計画) period (FY2028-2033) .  
: Deadline Sep 4, 2023, received **26 Lols**
2. In addition, a detailed **“proposal document”** (提案書 : will be explained later) was also requested for major 6 management expense grants projects (i.e. Mizusawa, Nobeyama, Solar Science, CfCA, ASTE, Gravitational Wave Science), and for a frontier project candidate that is expected to be proposed by NAOJ (ngVLA).  
: Deadline Oct 10, 2023
3. Note that **existing and already proposed Frontier projects were not included** in this process.
4. In the symposium,
  1. the groups submitting Lol will make poster presentation + 5min talk,
  2. 7 projects submitting the “proposal documents” will make 30min presentation describing their details, and
  3. based on above presentations, we will have a discussion on the framework of how to select the science cases to be included in the “Science Roadmap of NAOJ”

# Trial of the Proposing Process to the Roadmap of NAOJ (cont'd)

5. After the symposium, the Science Advisory Committee will
  - I. Review the “proposal documents” to check what written there is **enough to make a decision**, but **not evaluate their contents**.  
The comments will be returned to the proposers.
  - II. Review the list of Lol
  - III. The results of above reviews will be returned to the Advisory Committee (運営会議) of NAOJ.

# Contents of Lol

#		Max Characters	Characters	Entry Column
1	Project name	40	0	
2	Representative Name	20	0	
3	Representative Affiliation	20	0	
4	Name of the relevant research community (if any)	20	0	
5	Current status	150	0	
6	Expected status during the 5th Mid-Term Objective period (FY2028)	150	0	
7	Science goal	100	0	
8	Scientific objectives	200	0	
9	Science investigations	300	0	
10	Implementation period (including past periods for existing plans)	20	0	
11	Overall budget size (total or per year)	10	0	
12	NAOJ fund expected in the above (total amount or per year)	10	0	
13	Expected role of NAOJ	50	0	
14	Funding source (choose from below)	6	0	
	1. Existing MEXT Project to Promote Large Scientific Frontiers			
	2. Management Expenses Grants (Includes existing projects, basic developments of new plans)			
	3. New proposal for MEXT Project to Promote Large Scientific Frontiers			
	4. Budgets implemented by other institutes (e.g. universities and ISAS/JAXA)			
	5. External or competitive fund			
15	Brief line chart over the implementation period (attached image)			Examples below :
				<a href="https://www.mext.go.jp/a_menu/kyoten/20230403-mxt_kouhou02-2.pdf">https://www.mext.go.jp/a_menu/kyoten/20230403-mxt_kouhou02-2.pdf</a>
				<a href="https://www.mext.go.jp/a_menu/kyoten/20230403-mxt_kouhou02-3.pdf">https://www.mext.go.jp/a_menu/kyoten/20230403-mxt_kouhou02-3.pdf</a>

# 26 LOIs received

1	Promotion of time-domain astronomy with coordinated observations by satellites and large telescopes	Yonetoku, D.	Kanazawa U
2	The LOPYUTA Mission (Life-environmentology, Astronomy, and Planetary Ultraviolet Telescope Assembly)	Tsuchiya, F.	Tohoku U
3	SILVIA: In-Orbit Demonstration of Ultra-Precision Formation Flying	Funaki, I.	ISAS/JAXA
4	Einstein Telescope	Tomaru, T.	NAOJ
5	GREX-PLUS	Inoue, A.	Waseda U
6	Large Space Optical Infrared Telescope	Matsuda, Y.	NAOJ
7	Multi-messenger Astronomy Center	Yoshida, S.	Chiba U
8	Improvements for multi-messenger astronomy	Tominaga, No	NAOJ
9	Characterization of exoplanets by synergy with space and ground-based telescopes	Ikoma, M.	NAOJ
10	Participation to NASA Habitable Worlds Observatory	Sumi, T.	Osaka U
11	Solar flare X-ray focusing imaging spectroscopy	Narukage, N.	NAOJ
12	Space-borne solar experiments with the polarization measurement	Ishikawa, R	NAOJ
13	JASMINE: Japan Astrometry/photometry Satellite Mission for INfrared Exploration	Kano, R.	NAOJ
14	The SOLAR-C Mission : a satellite mission for a high-throughput EUV Imaging Spectroscopy of the Sun	Shimizu, T.	ISAS/JAXA

15	Hinode	Katsukawa, Y.	NAOJ
16	Nobeyama Radio Polarimeters: NoRP	Shimojo, Y.	NAOJ
17	The next generation Very Large Array (ngVLA)	Izumi, T.	NAOJ
18	Observations of solar activities at Mitaka	Hanaoka, Y., Katsukawa, Y.	NAOJ
19	Radio astronomy with ultra-high angular resolution using EAVN and beyond	Honma, M.	NAOJ
20	Radio Astronomy Researches with the Nobeyama 45 m Telescope and the State-of-the-Art Receivers	Tatematsu, K.	NAOJ
21	Promotion of planetary geodesy in Martian Moons eXploration mission (MMX) and Jupiter Icy Moons Explorer (JUICE) mission	Namiki, N.	NAOJ
22	Exploring the Time-Varying Universe: From Nanoseconds to Gigaseconds with JVN	Fujisawa, K.	Yamaguchi U.
23	KAGRA	Tomaru, T.	NAOJ
24	Exploring the physics of ultra-dense nuclear matter with high-frequency gravitational waves	Aso, Y.	NAOJ
25	Exploring the Universe by the Next-Generation Simulations	Kokubo, E.	NAOJ
26	Promotion of Submillimeter Astronomy with ASTE 10-m Submillimeter Telescope in Southern Hemisphere	Saito, M.	NAOJ

poster

proposal

## 26 LOIs received

- ▶ 8 LOIs proposed from non-NAOJ PI
- ▶ 9 LOIs are of projects under operation at NAOJ (or continuation of the existing projects)
- ▶ 11 LOIs for space projects
  - ▶ 7 new proposal
  - ▶ 3 already defined as “A-projects” of NAOJ
  - ▶ 1 under operation
- ▶ 1 LOI was rejected, as it will be terminated at the end of FY 2027 and is out of the scope of the current process (which focuses on FY2028-FY2033)

15 LOIs will be presented in the following 5min talks/posters (Session 7.1)

10 LOIs will be presented with detailed “Proposal” in Sessions 7.2 and 7.3