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Director, Earthquake Research Institute
The University of Tokyo

To the Heads of Universities and Research Institutions

Call for proposals for the FY2027 Joint Usage/Research Program

The Earthquake Research Institute (ERI), The University of Tokyo, would like to express its sincere appreciation for your continued support of our activities.

To further advance academic research in earthquake, volcano, and related areas through collaboration with universities and research institutions in Japan and overseas, ERI is pleased to announce its call for proposals for the FY2027 Joint Usage/Research Program, as outlined below.

We would appreciate your assistance in bringing this call to the attention of researchers and other relevant members at your institution.

For further details, please refer to the attached, “Application Guidelines,” “Categories of Joint Usage/Research Programs,” and “Important Notes,” as well as the [ERI Joint Usage website](#).

1. Program Categories

(1) Joint Research

- Specific Joint Research Project (A), (B), and (C)
- General Joint Research Project
- Joint Research Project on the Elucidation and Prediction of Earthquakes and Volcanic Eruptions
- Joint Research Project on High Energy Geophysics
- Supercomputer Joint Research Project

(2) Workshop/Symposium

(3) Usage of Facilities, Observation Equipment, and Laboratory Equipment

(4) Usage of Data and Research Materials

2. Research Period

April 1, 2027 to March 31, 2028

3. Application Deadline

October 30, 2026, 5:00 p.m. (JST)

Note: Additional call for proposals may be issued for the Supercomputer Joint Research Program.
Applications for (3) Usage of Facilities, Observation Equipment, and Laboratory Equipment and
(4) Usage of Data and Research Materials are accepted on a rolling basis.

Contact Information

Research Support Team (Joint Usage Section)
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APPLICATION GUIDELINES

The Earthquake Research Institute (ERI), The University of Tokyo, offers a range of programs under its Joint Usage/Research Programs to promote research in earthquake, volcano, and related fields in Japan and internationally, and invites applications for these programs each year.

Prospective applicants should review these Guidelines together with the accompanying “Categories of Joint Usage/Research Programs” and “Important Notes” before applying. The ERI Joint Usage/Research website also provides an overview of the Joint programs, application forms and procedures, Q&A, and other relevant information.

1. Program Categories

(1) Joint Research

- Specific Joint Research Project (A), (B), and (C)
- General Joint Research Project
- Joint Research Project on the Elucidation and Prediction of Earthquakes and Volcanic Eruptions
- Joint Research Project on High Energy Geophysics
- Supercomputer Joint Research Project

(2) Workshop/Symposium

- International Workshop/Symposium
- Domestic Workshop/Symposium

(3) Usage of Facilities, Observation Equipment, and Laboratory Equipment

(4) Usage of Data and Research Materials

2. Research Period

April 1, 2027 – March 31, 2028

3. Eligibility

Applications are open to faculty members and researchers affiliated with universities, national or public research institutions, and other organizations in Japan and overseas, as well as individuals with equivalent qualifications. Eligible applicants include emeritus professors, graduate students,

and researchers affiliated with private research institutions and companies. Applications from early-career researchers are particularly encouraged.

Graduate students may apply as principal investigators only in the following categories:

1. Category C (Challenging Research) of Supercomputer Joint Research Project under (1) Joint Research
2. (3) Usage of Facilities, Observation Equipment, and Laboratory Equipment
3. (4) Usage of Data and Research Materials

4. Application Procedures and Documents

Applications must be submitted using the designated forms and submission procedures specified for each program category.

5. Review and Selection

Applications will be reviewed by the Joint Usage Committee, and the results will be notified to the principal investigators by late March 2027.

Applications will be evaluated comprehensively based on the relevance of the proposed research to the objectives of the program, its academic significance, the appropriateness of the research plan and implementation framework, and the justification for the requested budget. For continuing projects, previous research achievements and progress will also be taken into consideration.

6. Financial Support

Based on the results of the review, ERI will provide financial support for expenses necessary to carry out the proposed research, within the funding limits specified for each research category and subject to the availability of the Joint Usage/Research Program. Eligible expenses include travel, consumables, services, and remuneration for routine work. As a general rule, equipment purchases are not covered.

For Supercomputer Joint Research Project, computational resources (e.g., computing tokens), will be allocated.

7. Application Deadline

October 30, 2026, 5:00 p.m. (JST)

Note:

- An additional call for applications for Supercomputer Joint Research Project may be issued if computational resources remain available.

- Applications for “(3) Usage of Facilities, Observation Equipment, and Laboratory Equipment” and “(4) Usage of Data and Research Materials” are accepted on a rolling basis.

8. Letters of Consent and Confirmation of Research Ethics

The principal investigator applying for “(1) Joint Research” must submit a Letter of Consent (Form N-1-E) from the head of their affiliated institution within two weeks of submitting the application. The letter should be uploaded to the designated URL. Applicants affiliated with ERI are exempt from this requirement.

The Confirmation of Research Ethics Form (Form N-2-E) and Letters of Consent for participants other than the principal investigator must be submitted after the acceptance of the proposal and before the research begins.

Note: Beginning with this call for proposals, the Confirmation of Research Ethics Form and the Letters of Consent (Form N-1) for participants other than the principal investigator are to be submitted after the acceptance of the proposal.

9. Project Report

A Project Report must be submitted using the designated form within 30 days after completion of the research.

Project Reports for Joint Research and Workshops/Symposia will be published on the ERI Joint Usage/Research website. Participant lists for Workshops/Symposia will not be made public.

Information contained in Project Reports may also be used in ERI’s Joint Usage/Research Programs activities in a form that does not identify individuals.

10. Acknowledgments in Publications and Submission of Publications

When publishing papers or other research outputs resulting from research conducted under the ERI Joint Usage/Research Program, authors must acknowledge ERI support and include the project code (e.g., 20XX-A-01) in the acknowledgement.

A PDF or URL of each resulting publication should also be submitted to the Research Support Team (Joint Usage Section), ERI.

Example acknowledgement:

This study was supported by ERI JURP 20XX-A-01 at Earthquake Research Institute, the University of Tokyo.

For projects accepted under the Supercomputer Joint Research Project, the acknowledgments must additionally state that the supercomputer Miyabi at the Joint Center for Advanced High Performance Computing (JCAHPC) was used.

Example acknowledgement:

This study was supported by ERI JURP 20XX-S-A101 at Earthquake Research Institute, the University of Tokyo. Computations were performed on the supercomputer Miyabi at the Joint Center for Advanced High Performance Computing (JCAHPC).

11. Handling of Personal Information

Personal information collected through the applications process will be used for the proper administration of ERI's Joint Usage/Research Programs. This includes the publication of applicants' and participants' names, affiliations, positions, and other relevant information in lists of accepted projects and Project Reports. Except as required by applicable laws or regulations, personal information will not be used for purposes other than those stated above or provided to third parties without the consent of the individual concerned.

12. Additional Information

For further details of the call for the proposals and on application and implementation procedures, please refer to the accompanying "Categories of Joint Usage/Research Programs," "Important Notes," and "List of Joint Usage/Research Programs."

Contact Information

Research Support Team (Joint Usage Section)
Earthquake Research Institute, the University of Tokyo
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TEL: +81-3-5841-1769
E-mail: k-kyodoriyo@eri.u-tokyo.ac.jp

CATEGORIES OF JOINT USAGE/RESEARCH PROGRAMS

(1) Specific Research Project (A), (B), and (C)

ERI invites researchers to participate in Specific Joint Research Project registered through a separate call for proposals (normally held around June each year). These projects promote organized collaborative research among researchers in Japan and overseas, with the aim of fostering new areas of research and developing broader nationwide and international research collaborations.

Specific Joint Research Projects registered through a separate call of proposals are divided into three categories, (A), (B), and (C), according to their objectives.

How to apply: Apply using the “**Specific Joint Research Project Participation Application Form**” available on the [Call for Proposals webpage](#).

Specific Joint Research Project (A)

ERI invites researchers to participate in registered Specific Research Projects listed in [Appendix A](#) that form part of either:

- project conducted under the national research program based on the recommendation of the Council for Science and Technology, Ministry of Education, Culture, Sports, Science and Technology (MEXT), entitled “[Promotion of the Third Earthquake and Volcano Hazard Reduction Research Program](#)” (hereafter, the “Kengi Program”), which ERI promotes in collaboration with universities and research institutions throughout Japan; or
- existing projects conducted by ERI in collaboration with institutions in Japan and overseas.

Eligible applicants are researchers who are not already participating in the registered project for which they wish to apply.

For “**Earthquake and Volcano Hazard Reduction Research**” (Project Code 2027-A-01) under the Kengi Program, applications are limited to researchers affiliated with institutions that do not currently participate in the Kengi Program. Please refer to the relevant webpages for [a list of participating institutions](#) and [details of individual projects](#) (available only in Japanese).

Research period: One year (applications may be renewed annually)

Research support: Travel expenses for participation in the project (up to JPY 300,000 per project per year)

Specific Joint Research Project (B)

ERI invites researchers to participate in registered Specific Research Projects listed in [Appendix B](#). These projects promote international, interdisciplinary, and exploratory research involving researchers from multiple institutions, with the aim of developing future nationwide or international large-scale research initiatives and establishing organized research frameworks.

Projects marked with a ★ next to the principal investigator in Appendix B are led by an early-career researcher and are intended to be conducted primarily by early-career researchers. An early-career researcher is defined as a researcher who, as of April 1 of the year in which the research begins, is either **39 years of age or younger** or **within eight years of receiving their doctoral degree (including those expected to receive the degree)**, excluding periods of maternity and childcare leave. ERI actively supports research led by early-career researchers.

Research period: One year (renewable for up to three years, subject to annual review)

Research support: Travel and collaborative research expenses (up to JPY 2,000,000 per project per year)

Specific Joint Research Project (C)

Note: No projects are available under this category for FY2027.

ERI invites researchers to participate in registered Specific Joint Research Projects listed in [Appendix C](#). Projects under this category do not receive financial support from the ERI Joint Usage/Research Program. Depending on the project, applications may also be accepted on a rolling basis during the fiscal year.

Research period: One year (applications may be renewed annually)

Research support: None

(2) General Joint Research Project

This program supports collaborative research conducted by small groups of researchers from ERI and other institutions. Applications from early-career researchers are particularly encouraged.

In the review process, priority will be given to proposals that contribute to the advancement of research at ERI* or stimulate research activities at the Institute. Proposals demonstrating a high degree of novelty and originality will also be highly valued.

Consideration will also be given to research projects conducted jointly by international visiting professors/researchers invited by ERI's International Research Promotion Office and their host researchers.

To promote the development of the next generation of researchers, favorable consideration will also be given to projects led by an early-career researcher, as defined under Specific Joint Research Project (B), and conducted primarily by early-career researchers. Applicants should indicate in the application form if their project meets these criteria.

* For information on research conducted at ERI, please refer to the [Earthquake Research Institute Brochure](#) or the [ERI Annual Report](#).

How to apply: Download **Application Form G-1-E** from the [Call for Proposals webpage](#) and submit it through the [Joint Usage Online Application System](#).

Application requirements:

- The principal investigator must be a researcher from outside ERI.
 - The research team must include at least one ERI faculty member as the ERI liaison.
- Applicants should consult in advance with the ERI liaison before submitting an application.

Research period: One year (applications may be renewed annually. Continuing projects should clearly describe how the proposed research builds on the previous year's work.)

Research support: Travel and collaborative research expenses of up to JPY 500,000 per project per year. If funding above this limit is required, for example, for expensive consumables or the participation of researchers from overseas, applicants should provide a clear justification in the application.

(3) Joint Research Project on the Elucidation and Prediction of Earthquakes and Volcanic Eruptions

This program invites proposals for new research projects addressing the research topics specified in [“III. Research Components”](#) of the recommendation of the Council for Science and Technology,

MEXT, entitled “[Promotion of the Third Earthquake and Volcano Hazard Reduction Research Program](#)” (hereafter, the “Kengi Program”), as well as related technological and database development. Proposed projects must not already be included in [Supplement A-01](#) of Appendix A.

Eligible research areas under “III. Research Components” are:

1. Research toward understanding earthquake and volcanic phenomena;
2. Research toward prediction of earthquakes and volcanic eruptions;
4. Research toward improving disaster-prevention literacy for earthquakes and volcanic eruptions;
5. Comprehensive interdisciplinary research on earthquakes and volcanic eruptions; and
6. Development of observational infrastructure and research frameworks.

Research under “3. Research toward prediction of disaster-inducing phenomena associated with earthquakes and volcanic eruptions” is solicited separately through the Core-to-Core Collaborative Research Program conducted jointly by ERI and the Disaster Prevention Research Institute, Kyoto University.

In reviewing proposals, particular emphasis will be placed on their relevance to the research topics of the Kengi Program and on the novelty of the proposed research. Priority will be given to key research topics including long-term earthquake forecasting, quantitative assessment of volcanic activity, major earthquakes such as Nankai Trough and earthquakes in the Tokyo metropolitan area, and large-scale volcanic eruptions.

Funding decisions will be made by the ERI Joint Usage Committee based on reviews conducted by the Council for Advancing Earthquake and Volcano Research.

How to apply: Download **Application Form Y-1-E** from the [Call for Proposals webpage](#) and submit it through the [Joint Usage Online Application System](#).

Application requirements:

- Clearly identify the relevant research topic of the Kengi Program in the application and explain how the proposed research relates to it.
- For continuing projects, clearly explain how the proposed research builds on the results of the previous year. During the review process, a proposal may be reclassified as either a new or continuing project.
- An ERI faculty member from the Collaboration Center for Earthquake and Volcano Research will participate in each accepted project and serve as the ERI liaison.

- In addition to submitting the ERI final report, principal investigators are required to submit a research report to the Council for Advancing Earthquake and Volcano Research and present their results at the annual research symposium.

Research period: One year (renewable for up to three years, subject to annual review, but no later than the end of FY2028, the final year of the Third Earthquake and Volcano Hazard Reduction Research Program)

Research support: Travel and collaborative research expenses (up to JPY 1,000,000 per project per year)

(4) Joint Research Project on High Energy Geophysics

This program invites proposals for research and technology development related to **high-energy particle geophysics, including muography**, with the aim of creating new research fields through interdisciplinary collaboration.

Industry–academia collaboration and the use of matching funds are encouraged. Proposals will be evaluated with particular emphasis on the originality and feasibility of the proposed technology development and its potential to contribute to the creation of new interdisciplinary research fields.

Funding decisions will be made by the ERI Joint Usage Committee following review by the Committee for Joint Research Project on High Energy Geophysics.

How to apply: Download **Application Form H-1-E** from the [Call for Proposals webpage](#) and submit it through the [Joint Usage Online Application System](#).

Application requirements:

- The research team must include at least one ERI faculty member as the ERI liaison. Applicants should consult in advance with the ERI liaison before submitting an application.
- Because this program is expected to foster innovation and the creation of intellectual property through technology development and industry–academia collaboration, participants will be required to submit an **Intellectual Property Pledge (Form N-3-E)** after notification of acceptance. This requirement does not apply to individuals who have submitted the pledge within the past five years, members of The University of Tokyo, or undergraduate students, technical staff, and technical assistants serving as research assistants.

Research period: One year (applications may be renewed annually)

Research support: Travel and collaborative research expenses of up to JPY 1,000,000 per project per year. If funding above this limit is required, for example, to **cover travel expenses for** researchers from overseas, applicants should provide a clear justification in the application.

(5) Supercomputer Joint Research Project

This program provides access to large-scale computing resources for research in earthquake, volcano, and disaster science that requires large-volume data processing or large-scale numerical computation.

Applicants should select one of the following three categories according to the amount of computing resources required:

A: Large Research Project

Projects comprising multiple large-scale computational studies
(75,000 tokens or more)

B: Research Project

Projects comprising multiple large-scale computations
(less than 75,000 tokens)

C: Challenging Research Project

Preparatory research for Categories A or B, exploratory research, and research that is difficult to conduct using ERI's EIC computing systems
(7,500 tokens or less)

In reviewing proposals, particular emphasis will be placed on the need for large-scale computing and the relevance of the proposed research to earthquake, volcano, and disaster science. Resource allocations will be determined by the ERI Joint Usage Committee following a review by the Committee for Supercomputer Joint Research Project.

How to apply: Download the appropriate application form—**Form S-1a-E** for Category A, **Form S-1b-E** for Category B, or **Form S-1c-E** for Category C—from the [Call for Proposals webpage](#) and submit it, together with the supplementary document providing details of the research team (**Appendix S**), through the [Joint Usage Online Application System](#).

Application requirements:

- For Categories A and B, the research team must include at least one ERI faculty member as the ERI liaison. Applicants should consult in advance with the ERI liaison before submitting an application.
- Graduate students may apply as principal investigators for Category C.
- As a general rule, applications are invited once a year. An additional call for proposals may be issued if computing resources remain available.

Research period: One year (applications may be renewed annually)

Support provided: Computing resources, including tokens and storage, on **Miyabi**, the supercomputer system of the Joint Center for Advanced High Performance Computing (JCAHPC). Please refer to the [User Guide](#) provided by the Information Technology Center, The University of Tokyo, for details of the terms and conditions of use.

(6) Workshop/Symposium

This program supports workshops and symposia that bring together researchers for one to three days of intensive discussion on specific research topics in earthquake, volcano, and related fields. Activities that contribute to the future development of the earthquake and volcano research community, such as summer schools, are also eligible.

Applicants should select one of the following categories:

- **International Workshop/Symposium:** Researchers from overseas must participate, and English should, in principle, be the primary language of the meeting.
- **Domestic Workshop/Symposium:** There are no restrictions on the language used or the nationality or affiliation of participants.

How to apply: Download **Application Form W-1-E** from the [Call for Proposals webpage](#) and submit it through the [Joint Usage Online Application System](#).

Application requirements:

- The organizing team must include at least one ERI faculty member as the ERI liaison. The representative of the workshop/symposium should consult in advance with the relevant participants and the ERI liaison regarding the scale and content of the proposed meeting.
- The workshop/symposium should, in principle, be held at ERI. Online meetings are also permitted. If a meeting is to be held at another location, the reason must be stated in the application.

- If substantial changes to the approved plan arise after acceptance, such as a change of venue, the proposal may be subject to further review. Please contact ERI promptly in such cases.
- The Earthquake Research Institute, The University of Tokyo, must be identified as one of the organizers of the meeting. Applicants should also indicate in the application whether the meeting will be **open** or **closed** to general participants.

Meeting duration: One to three days.

Research support: Eligible expenses include travel expenses for participants who meet the eligibility requirements of the Joint Usage/Research Program, printing and electronic publication costs, remuneration for routine work, and service expenses necessary to organize the meeting. The maximum support is **JPY 2,000,000 for an International Workshop/Symposium** and **JPY 1,000,000 for a Domestic Workshop/Symposium**.

(7) Usage of Facilities, Observation Equipment, Laboratory Equipment, Data, and Research Materials

ERI accepts applications for the use of the following resources managed by the Institute:

- Joint-use facilities and equipment listed in [Appendix F](#);
- Designated equipment listed in [Appendix M](#); and
- Data and research materials listed in [Appendix D](#).

How to apply: Apply using the **Application Form for the Use of Facilities, Equipment, Data and Research Materials** available on the [Call for Proposals webpage](#).

Application and use requirements:

- Applicants should consult with the relevant ERI faculty member in advance regarding the proposed use.
- Applicants wishing to receive data from the nationwide seismic observation system via satellite communications or other means must also submit a **Data Reception Application Form (Form T-1-E)** by email to the ERI Research Support Team (Joint Usage Section).
- Applications to use the computing systems and databases operated by the **Research Center for Monitoring Japan Arc** should be submitted through the [Center's website](#).
- When equipment or other property is to be taken outside ERI, an **Equipment Loan Form (Form F-3-E)** must, in principle, be submitted at least two weeks before the start of use.

Period of use: Up to one year. For designated equipment listed in Appendix M, applications for use of less than two months are accepted on a rolling basis. A separate call for applications for use of two

months or longer is normally issued around February two fiscal years before the year of use. A new application must be submitted whenever the period of use extends into a subsequent fiscal year or beyond the period originally approved.

Financial support: No financial support is provided for the use of these resources. Applicants who require research funding in connection with their use are encouraged to consider applying for a **General Joint Research Project**.

IMPORTANT NOTES

1. When using ERI facilities or equipment, users must consult and coordinate closely with the relevant ERI faculty member. Users must comply with the rules and regulations of The University of Tokyo and all applicable laws and regulations and follow the instructions of the Director of ERI and relevant faculty members regarding environmental protection and safety.
2. Graduate students participating as a Principal Investigator or Co-Investigator must obtain the consent of their academic supervisor, in addition to submitting a Letter of Consent (Form N-1-E) from the head of their affiliated institution.
3. Undergraduate students, technical staff, and technical assistants may participate as Research Assistants. They must submit a Letter of Consent (Form N-1-E) from the head of their affiliated institution. Undergraduate students must also obtain the consent of their academic supervisor. Research Assistants are not required to submit a Confirmation of Research Ethics (Form N-2-E).
4. In principle, any loss or damage arising from the conduct of research or the use of facilities or equipment must be handled under the responsibility of the participant's affiliated institution. Students participating in observations or experiments must obtain liability insurance, such as **“Futai-baiseiki” (Personal Liability Insurance for Students Pursuing Education and Research)** provided by Japan Educational Exchanges and Services (JEES), or equivalent coverage.
5. If borrowed equipment or other items are damaged or lost, the user is responsible for arranging their repair or replacement. If damage resulting from use is discovered after an item has been returned, the user may be required to cover the cost of repair. Participating institutions are encouraged to obtain appropriate insurance coverage.
6. Equipment may not be purchased with Joint Usage/Research Program funds. For this purpose, “equipment” refers to an item with a useful life of at least one year and an acquisition cost of JPY 100,000 or more. Certain items, such as batteries and reagents, may be treated as consumables even if their acquisition cost exceeds JPY 100,000. Please contact ERI in advance if you are unsure how an item should be classified.
7. If intellectual property arises from activities conducted under the Joint Usage/Research Program, participants must notify the relevant ERI faculty member and the collaborating researchers listed in the application before filing an application for a patent or other intellectual property rights. Participants must also report the matter to the intellectual property office of their affiliated institution. Ownership, allocation of rights, filing procedures, and other matters relating to the intellectual property will be determined through consultation among the parties concerned.

8. Project Reports for Joint Research and Workshops/Symposia will be published on the ERI Joint Usage website. Participant lists for Workshops/Symposia will not be made public.
9. If personal information is collected in the course of a project, participants must be informed that the information will be included in the Project Report submitted to ERI and that information such as the number of participants may be used in reports on ERI's Joint Usage/Research activities in a form that does not identify individuals. Appropriate procedures, including obtaining consent where required, must be followed in accordance with the Act on the Protection of Personal Information of Japan and other applicable laws and regulations.
10. Please also refer to the Q&A for the Joint Usage/Research Program. For further information or inquiries, please contact the Research Support Team (Joint Usage Section), Earthquake Research Institute.

Contact Information

Research Support Team (Joint Usage Section)

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Earthquake Research Institute, The University of Tokyo

List of Joint Usage/Research Programs

Category	Program	Description	Research Period	Support from ERI	Application Period, etc.	Remarks
Visiting Faculty (International Office Invitation Program)	International Office Visiting Faculty Program (Open Call for Direct Applications)	Applications are invited from foreign researchers and Japanese researchers residing overseas who wish to conduct collaborative research at ERI.	In principle, 2–6 months	Travel expenses, per diem, and accommodation expenses	June–August	See the Visiting Program of the International Office website for details.
	International Office Visiting Faculty Program (Nomination-based Call)	Researchers residing overseas who wish to conduct collaborative research with ERI as their research base are nominated by researchers residing in Japan (professors, associate professors, or researchers with equivalent qualifications).	Approx. 3–6 months	Travel expenses, per diem, and accommodation expenses. In some cases, the University of Tokyo may employ the researcher and provide a salary and commuting allowance, etc.	June–August	Nominators may apply for travel and other expenses related to the collaborative research under the General Research Program.
Visiting Faculty	Domestic Visiting Faculty Program	Applications are invited from researchers at other institutions to conduct collaborative research in earthquake, volcano, and related fields as visiting faculty members and to contribute to education through seminars and other activities.	1 year	Research expenses and travel expenses determined according to the distance to ERI	September–October	3 positions under the general category; 4 positions nominated by the Volcano Research Center and Council for Advancing Earthquake and Volcano Research
Collaborative Research	Specific Joint Research Project (A)	Researchers are invited to participate in pre-registered research projects conducted under the “ Research Program for Mitigating Seismic and Volcanic Disasters ” * or in nationwide research projects conducted by ERI in collaboration with relevant institutions.	1 year	Up to JPY 300,000 (travel expenses)	June–July: project registration by PIs;	
	Specific Joint Research Project (B)	Researchers are invited to participate in registered research projects aimed at future development into funded projects, including large-scale projects, even if no project funding is currently secured.	1 year; renewable for up to 3 years subject to review	Up to JPY 2,000,000 (travel and collaborative research expenses)	September–October: call for participants; November: submission of research plans by PIs	Early-Career Researcher ** Category: Consideration is given during review from the perspective of fostering early-career researchers.
	Specific Joint Research Project (C)	Researchers nationwide are invited to participate in collaborative research projects that do not require financial support from the Joint Usage/Research Program.	1 year	None		
	General Research Project	Applications are invited for small-group collaborative research projects conducted jointly by researchers within and outside ERI.	1 year	Up to JPY 500,000 (travel and collaborative research expenses)	September–October	Early-Career Researcher ** Category: Consideration is given during review from the perspective of fostering early-career researchers.

* “**Research Program for Mitigating Seismic and Volcanic Disasters**” refers to the [Third Research Earthquake and Volcano Hazards Observation and Research Program for Mitigating Seismic and Volcanic Disasters](#) (FY2024–FY2028).

** An **Early-Career Researcher** is defined as a researcher who, as of April 1 of the year in which the research begins, is either 39 years of age or younger or within eight years of receiving their doctoral degree (including those expected to receive the degree), excluding periods of maternity and childcare leave. ERI actively supports research led by early-career researchers in this category.

Category	Program	Description	Research Period	Support from ERI	Application Period, etc.	Remarks
Collaborative Research	Joint Research Project on the Elucidation and Prediction of Earthquakes and Volcanic Eruptions	Applications are invited for new research projects not listed in Appendix A-01 that address research topics described in “ III. Research Components ” of the “ Research Program for Mitigating Seismic and Volcanic Disasters ” *, including related technological and database development. Eligible fields include: (1) research for understanding earthquake and volcanic phenomena; (2) research for predicting earthquakes and volcanic eruptions; (4) research for improving disaster-prevention literacy concerning earthquakes and volcanic eruptions; (5) comprehensive interdisciplinary research on earthquakes and volcanic eruptions; and (6) development of observation infrastructure and research promotion systems.	1 year; renewable for up to 3 years subject to review, but not beyond the final year of the Research Program	Up to JPY 1,000,000 (travel and collaborative research expenses)	September–October	
	Joint Research Project on High Energy Geophysics	Applications are invited for research and related technological development in high-energy particle geophysics (e.g., muography), with the aim of creating new research fields through interdisciplinary collaboration.	1 year	Up to JPY 1,000,000 (travel and collaborative research expenses)	September–October	Submission of a pledge concerning the handling of intellectual property generated through the research is required. Industry–academia collaborative research and contributions to matching funds supporting such collaboration are encouraged.
	Supercomputer Joint Research Project	Applications are invited for research projects involving large-scale computation in earthquake, volcano, disaster mitigation, and related fields.	1 year	No financial support; computational resources on Miyabi of the Joint Center for Advanced High Performance Computing (JCAHPC), Information Technology Center, The University of Tokyo, are allocated.	September–October; (An additional call for proposals may be issued if computing resources remain available.)	Please refer to the User Guide provided by the Information Technology Center, The University of Tokyo, for details of the terms and conditions of use.
Workshop / Symposium	Domestic Workshop / Symposium	This program supports workshops and symposia that bring together researchers for one to three days of intensive discussion on specific research topics in earthquake, volcano, and related fields. Activities that contribute to the future development of the earthquake and volcano research community, such as summer schools, are also eligible. In principle, meetings are held at ERI.	1–3 days	Up to JPY 1,000,000 (travel expenses, honoraria, and service fees related to meeting organization)	September–October	
	International Workshop / Symposium	Same purpose as above. In principle, meetings are held at ERI. Researchers from overseas must participate, and English should, in principle, be the primary language of the meeting.	1–3 days	Up to JPY 2,000,000 (travel expenses, honoraria, and service fees related to meeting organization)	September–October	

* “**Research Program for Mitigating Seismic and Volcanic Disasters**” refers to the [Third Research Earthquake and Volcano Hazards Observation and Research Program for Mitigating Seismic and Volcanic Disasters](#) (FY2024–FY2028).

Category	Program	Description	Research Period	Support from ERI	Application Period, etc.	Remarks
Use of Facilities, Observation Equipment, Laboratory Equipment, etc.	Designated Equipment (use for 2 months or longer)	Applications are invited to borrow observation Equipment and other equipment designated by ERI as “Designated Equipment.”	Up to 1 year	None	Around February two fiscal years before the year of use	A new application is required for each fiscal year if the borrowing period extends beyond the end of the fiscal year.
	Designated Equipment (use for less than 2 months)	Applications to borrow Designated Equipment for periods of less than 2 months.	Less than 2 months	None	Applications are accepted on a rolling basis.	A new application is required if the borrowing period extends beyond the fiscal year or beyond the period specified in the original application.
	Facilities, Observation Equipment, Laboratory Equipment, etc.	Applications are invited to use or borrow facilities, observation equipment, laboratory equipment, and other resources designated by ERI.	Up to 1 year	None	Applications are accepted on a rolling basis.	A new application is required for each fiscal year if the usage/borrowing period extends beyond the end of the fiscal year.
Use of Data and Research Materials, etc.	Data, Materials, etc.	Applications are invited to use earthquake and other geoscientific data and research materials held by ERI that are available for joint usage.	Up to 1 year	None	Applications are accepted on a rolling basis.	A new application is required for each fiscal year if the usage period extends beyond the end of the fiscal year.

Core-to-Core Collaborative Research Program

Category	Program	Description	Research Period	Support from ERI	Application Period, etc.	Remarks
Core-to-Core Collaborative Research Program	Priority Research Projects	Applications are invited for projects related to the Promotion Research Programs (Integrated Research or Specific Research Programs [1]–[6]) under the collaborative research program between ERI and the Disaster Prevention Research Institute, Kyoto University.	1 year	—	December–January; notification of selection around June of the research year	
	General Research Projects	Applications are invited, from individuals or teams, for projects related to “3. Research for Predicting Disaster-Inducing Processes of Earthquakes and Volcanic Eruptions” under the Research Program for Mitigating Seismic and Volcanic Disasters* . Projects that are expected to advance research through collaboration between seismology/volcanology based primarily on scientific approaches and comprehensive disaster-prevention studies are particularly encouraged.	1 year; renewable for up to 2 years, but not beyond the final year of the Research Program	Up to JPY 2,000,000 (travel and collaborative research expenses)		

* “Research Program for Mitigating Seismic and Volcanic Disasters” refers to the [Third Research Earthquake and Volcano Hazards Observation and Research Program for Mitigating Seismic and Volcanic Disasters](#) (FY2024–FY2028).

【Appendix A】 FY2027 Specific Research Project (A) Titles

Project Code Project Title	○Principal Investigator • Contact Person at ERI	Details of the Project and Condition to Participate in the Project
2027-A-01 Earthquake and Volcano Hazards Observation and Research Program	○ List of principal investigators is given in Table A-01 • Head of Collaboration Center for Earthquake and Volcano Research	The Third Earthquake and Volcano Hazards Observation and Research Program (Earthquake and Volcano Hazard Reduction Research) is a 5-year plan beginning in Fiscal Year 2024, based on a proposal in December, 2023, by the Council for Science and Technology (refer to the website; http://www.mext.go.jp/b_menu/shingi/gijyutu/gijyutu6/toushin/1413118_00006.htm). The program is composed of the six components as follows; 1. Research for the elucidation of earthquakes and volcanic phenomenon, 2. Research for prediction of earthquakes and volcanic eruptions,. 3. Research for prediction of induce factors of earthquake and volcanic eruption disasters, 4. Research to improve literacy for preventing disasters due to earthquakes and volcanic eruptions, 5. Cross-disciplinary comprehensive research on earthquakes and volcanic eruptions, 6. Improvement of a system for research promotion, Researchers from 42 universities, research institutions and government agencies across the country have been jointly conducting about 160 specific research projects under the program. The Earthquake Research Institute will subsidize the expense of joining any of Universities' projects under this program listed in 【Table A-01】 for researcher(s) from universities or research institutes which do not participate in the Earthquake and Volcano Hazard Reduction Research. Those researcher(s) who wish to join a specific project should take contact with the Principal Investigator of the project, and submit the application. Please refer to Table A-01 at the following URL for detailed information about the respective projects. (available only in Japanese) https://www.eri.u-tokyo.ac.jp/YOTIKYO/_f/2026/06/project_3rd_A01_2026.html
2027-A-02 Structure and dynamics of Earth's deep interior	○Masayuki Obayashi (JAMSTEC) •Hisayoshi Shimizu	This collaborative research aims to improve our understanding of the structure and dynamics of the Earth's deep interior through global-scale geophysical observations. We will continue long-term observations using the geophysical observation network in the Pacific region that succeeds the Ocean Hemisphere Network, and conduct campaign-based seismic and electromagnetic observations on land and on the seafloor. By integrating and analyzing the data obtained from these observations, we aim to advance a comprehensive understanding of the structure and dynamics of the Earth's interior. <u>Project name of the financial base to conduct this specific research project(A):</u> Contribution to Global Seismographic Network Geophysical studies by using submarine cables, TPC-1 and TPC-2.

Project Code Project Title	○Principal Investigator • Contact Person at ERI	Details of the Project and Condition to Participate in the Project
2027-A-03 Acceleration of Earthquake and Geodetic Research Based on Cutting- Edge Information Science	○Hiromichi Nagao (Earthquake Research Institute) •Hiromichi Nagao	This joint research will conduct developments and applications of cutting-edge information science technique, including AI, with the aim to accelerate earthquake and geodetic research through collaborations of experts in information science, seismology, and geodesy. Not only the following research topics conducted under the STAR-E NEXT Project, which is the foundation for this joint research, but also attempts to start new research topics are welcome. (1)Advancement of techniques to generate earthquake and slow earthquake catalogs; (2)Advancement of short-, medium-, and long-term assessments of seismic activities and hazards considering mega-earthquake affects; (3)Development of automatic geodetic data analysis methods for detecting weak crustal deformation; (4)Development of advanced predictive models for fault slips; (5)Development of seismic wave propagation prediction techniques for damage assessment; (6)Development of information science techniques to uncover past earthquake-related phenomena and insights from historical records and documents; (7)Development of next-generation scientific AI techniques; (8)Development of information science techniques to discover unknown earthquake-related phenomena <u>Requirement for participation:</u> Participation in events, such as joint study sessions for early-career scientists, organized by the STAR-E NEXT Project. See below for details on the STAR-E NEXT Project. https://www.mext.go.jp/a_menu/kaihatu/jishin/mext_03435.html <u>Project name of the financial base to conduct this specific research project(A):</u> MEXT “Seismology TowArd Research innovation for Earthquake evaluationN with EXacT data” (STAR-E NEXT Project) PI: Hiromichi Nagao, Earthquake Research Institute, The University of Tokyo Period: FY2026–2030

【Table A-03】 2027-A-03 Projects

Research topics in “Acceleration of Earthquake and Geodetic Research
Based on Cutting-Edge Information Science”

No.	PI	Affiliation	Research Project
A-1	Hiromichi Nagao	Earthquake Research Institute, The University of Tokyo	Advancement of Simulation Techniques in Seismology Based on Information Science
A-2	Makoto Naoi	Faculty of Science, Hokkaido University	Advancement of Data Analysis Techniques in Seismology Based on Information Science
B-1	Masayuki Kano	Disaster Prevention Research Institute, Kyoto University	Advancement of Simulation Techniques in Geodesy Based on Information Science
B-2	Kazutoshi Imanishi	Research Institute of Earthquake and Volcano Geology, National Institute of Advanced Industrial Science and Technology	Advancement of Data Analysis Techniques in Geodesy Based on Information Science
C-1	Yoshikazu Terada	Graduate School of Engineering Science, The University of Osaka	Development of Information Science Techniques for Earthquake Research
C-2	Keisuke Yano	The Institute of Statistical Mathematics	Development of Information Science Techniques for Geodetic Research

Table A-03

【Appendix B】 FY2027 Specific Research Project (B) Titles

Project Code Project Title	○ Principal Investigator/ ★ Early-Career Scientist • Contact Person at ERI	Details of the Project and Condition to Participate in the Project
2025-B-02 Push forward the Nishinoshima interdisciplinary research	★Kenta Yoshida (JAMSTEC) •Fukashi Maeno	Nishinoshima, a volcanic island in the Ogasawara arc, has been erupting intermittently since 2013. 2020 saw a major change in the eruption style from gentle to explosive, as well as in the magma composition from andesite to basaltic andesite. Although the island is located in a remote area, it is important to monitor its activities from the perspective of volcanic disaster prevention. The island is also of biological interest because it is one of the unique places in the world where we can observe the primary dispersal of organisms on an isolated island. Recent researches on Nishinoshima Island have been conducted through research cruises by JAMSTEC and the Ministry of the Environment, aerial observations mainly by the Japan Coast Guard, and remote observations using satellite. As researchers from various fields are involved, even a cross-disciplinary community of earth sciences such as JpGU is not sufficient for comprehensive discussions. In this joint research project, researchers working on Nishinoshima in the fields of geology, geochemistry, geophysics, ecology, etc. will gather to understand the current status of research of Nishinoshima, and to discuss how to overcome the obstacles faced by each field. The purpose of this meeting is to promote research on Nishinoshima. <u>List of affiliations for projected participants:</u> JAMSTEC, Japan Wildlife Res. Center, Forestry and Forest Product Res. Inst., JAXA, Meteor. Res. Inst., NIED, Tsukuba Uni., Uni. Tokyo, Kitasato Uni., Meiji Uni., Shizuoka Uni., Nagoya Uni., Kyoto Uni., Kochi Uni.
2025-B-03 Comprehensive understanding of spatiotemporal mass variations in active volcanoes based on multiscale gravity observations	○Takahito Kazama (Kyoto University) •Yuichi Imanishi	Our goal is to understand mass variations in active volcanoes on spatiotemporally broadband scales by performing multiple gravity observations at the volcanoes simultaneously. First, participants of this study bring several types of gravimeters (such as absolute, superconducting, and spring-type relative gravimeters) and conduct simultaneous gravity observations at active volcanoes. We then obtain spatiotemporally multiscale gravity variations around the volcanoes, by combining absolute, continuous, and wide-area campaign gravity observations. We also estimate spatiotemporal mass variations in the volcanoes, by applying hydrological disturbance corrections and inverse analyses to the observed gravity data. We finally provide a comprehensive assessment of volcanic activities for the target volcanoes in terms of mass variations, by comparing the estimated mass variations with other geoscience observation data such as GNSS and InSAR data. The target volcanoes for the gravity observations will be determined through discussion among the participants in this research project. The volcanoes to be observed include Aso, Kirishima, Sakurajima, and Ontake volcanoes, where active volcanic activities have been confirmed in recent years, as well as Fuji, Asama, Kusatsu-shirane, and Hakone volcanoes, where gravity observations have been conducted in the past. This research project invites researchers and graduate students specializing in gravimetry and volcanology. Those involved in geodesy and solid earth physics are also welcome to participate. In particular, this study has been conducting simultaneous observations with the GNSS research project of ERI-JURP in FY2026 and beyond, so participants of the GNSS research project are encouraged to join this gravimetry project as well. Note that participants in this project do not necessarily need to own gravimeters, because gravimeters can be rent in the framework of ERI-JURP.

Project Code Project Title	○ Principal Investigator/ ★ Early-Career Scientist ▪ Contact Person at ERI	Details of the Project and Condition to Participate in the Project
		List of affiliations for projected participants: Hokkaido Univ.; Hirosaki Univ.; Iwate Univ.; Tohoku Univ.; Tsukuba Univ.; The Univ. of Tokyo; Waseda Univ.; Nihon Univ.; Toyama Univ.; Kanazawa Univ.; Shizuoka Univ.; Nagoya Univ.; Kyoto Univ.; Kobe Univ.; Kochi Univ.; Kyushu Univ.; Kumamoto Univ.; Kagoshima Univ.; National Astronomical Observatory of Japan; National Institute of Polar Research; Geospatial Information Authority of Japan; Meteorological Research Institute; National Research Institute for Earth Science and Disaster Resilience; National Institute of Advanced Industrial Science and Technology; National Institute of Information and Communications Technology; Institute of Physical and Chemical Research; Japan Agency for Marine-Earth Science and Technology; Hokkaido Research Organization; Hot Springs Research Institute of Kanagawa Prefecture; Mount Fuji Research Institute, Yamanashi Prefectural Government
2026-B-01 Earth's Structures and Physical Properties: Fast-to-Slow Modeling of the Earth	○Nozomu Takeuchi (Earthquake Research Institute) • Nozomu Takeuchi	Earth shows different (elastic and viscous) features according to the time scales. We so far observed and discussed each feature separately. However, with the progress of the understandings of the viscoelastic properties, unconventional discussions are becoming feasible such as inferring viscosity structures from observed seismic waveforms. In this project, we explore possibilities of new earth sciences through the efforts to interpret various observations and experimental results as an output of a unified viscoelastic model. We expect participations of researchers with various backgrounds including seismology, geodesy, material sciences, geodynamics, and geoelectromagnetics. In this year, we review the current status of each research field and aim to identify the topics which we should address in the near future. List of affiliations for projected participants: JAMSTEC, University of Tokyo, Hokkaido University, Tohoku University etc.
2026-B-03 Inter-segment tectonics of the Ryukyu Trench subduction zone	○Kimihiro Mochizuki (Earthquake Research Institute) • Kimihiro Mochizuki	In the 2011 Tohoku-Oki earthquake, multiple fault segments along the Japan Trench ruptured, resulting in a massive Mw 9.0 earthquake. Similar cases of multiple segments rupturing together to generate large earthquakes have been observed in many other subduction zones. When we take a broad view across both offshore and onshore regions, comparing the distribution of seismic fault segments with volcanic chains and topographic features, striking correlations emerge among these elements. This suggests that the response to subduction processes spanning multiple orders of magnitude in time, from earthquake cycles to landscape formation, may be understood as part of a unified subduction system. To elucidate how such correlated segments of seismicity, volcanism, and topography are formed and interact with each other, an interdisciplinary perspective that spans across these fields is essential. Based on this perspective, we propose a new conceptual framework called “inter-segment tectonics.” This project will promote international collaborative research focusing on the prominent segments (segmentation) observed along the Ryukyu Trench. This study welcomes participation from a wide range of research fields related to the Ryukyu subduction zone. List of affiliations for projected participants: Earthquake Research Institute, University of Tokyo; Department of Earth and Planetary Science, University of Tokyo; University of the Ryukyus; Shizuoka University, Tohoku University; Academia Sinica (Taiwan); National Central University (Taiwan); National Taiwan University (Taiwan)

Project Code Project Title	○ Principal Investigator/ ★ Early-Career Scientist • Contact Person at ERI	Details of the Project and Condition to Participate in the Project
2026-B-04 Establishment of a Remote Disaster Detection Platform and Measurement Standards Using Broadband Infrasonnd	★Yasuhiro Nishikawa (Osaka Kyoiku University) • Shingo Watada	This project aims to develop and operate a fundamental technology platform for acquiring source information and estimating disaster scales via remote sensing in response to large-scale natural disasters such as tsunamis, volcanic eruptions, landslides, avalanches, and meteorite impacts. Through the framework of this joint research initiative, infrasound researchers across Japan have collaborated to establish an observational network and strengthen the research infrastructure. As one of the achievements, this effort has evolved into the formation of the <i>National Infrasound Observation Consortium of Japan</i>. In recent years, joint efforts among universities, research institutions, and private companies have advanced initiatives including the cost reduction of compact sensors using MEMS-type pressure sensors and microphones, the development of reliable and robust observation systems, and the real-time visualization and partial public release of observational data. The scope of activity has also expanded to glacier observations in Antarctica, sensor deployments in the Australian desert for meteoroid detection, and proposals for payload instrumentation on planetary exploration missions such as those to Mars. This project builds upon such knowledge and technological foundations and utilizes standard datasets derived from existing seismic observation networks to pursue remote detection and assessment of energy released during disaster events. Quantification of disaster scale requires precise measurement of acoustic pressure in the infrasound frequency band. However, this band lies at the boundary between acoustics and barometry, and the lack of established measurement standards poses a significant challenge. The establishment of measurement standards in this domain is recognized internationally as a critical issue, and while discussions are ongoing in several countries, it remains an open area of research and development. Based on the above, this joint research project will leverage the domestic network of infrasound researchers to promote efforts toward the future establishment of national measurement standards, with the aim of improving observational accuracy and ensuring data reliability in Japan. During the current fiscal year, online meetings were held to discuss methods for comparing and calibrating different types of infrasound sensors used in Japan, the frequency ranges to be investigated, and practical issues related to the experiments. As a result of these discussions, the participants agreed on a basic strategy in which background noise and long-period signals below 0.1 Hz will be evaluated through outdoor comparative observations, while sensor responses and instrumental variations above 0.1 Hz will be examined using calibration facilities. Preliminary experiments and a research meeting involving available researchers and institutions are also planned at the AIST Tsukuba Center during the current fiscal year. Several practical constraints have been identified, including the limited number of sensors that can be accommodated simultaneously in the calibration facilities, as well as power supply and installation requirements for operating multiple sensors outdoors. It is therefore difficult to complete the comparison of all sensors and frequency ranges within a single fiscal year, and continued investigation through phased experiments is required. In the next fiscal year, comparative experiments and research meetings will continue primarily at the AIST Tsukuba Center to refine the measurement conditions, data acquisition procedures,

Project Code Project Title	○ Principal Investigator/ ★ Early-Career Scientist • Contact Person at ERI	Details of the Project and Condition to Participate in the Project
		and analysis methods, leading to full-scale comparative calibration and the standardization of measurement procedures. List of affiliations for projected participants: National Institute of Advanced Industrial Science and Technology (AIST), Chitose Institute of Science and Technology, Hokkaido Information University, National Institute of Information and Communications Technology (NICT), Earthquake Research Institute, The University of Tokyo, Japan Weather Association, Kanazawa University, Nagoya University, Kyoto Sangyo University, Kyoto University, Kochi University of Technology, Kyushu University, Institute of Space and Astronautical Science (ISAS), National Institute of Polar Research (NIPR)
2026-B-06 Advancing campaign dense seismic observation with seismic nodes	○ Ryota Takagi (Tohoku University) • Akiko Takeo	Aim of the study: Seismic nodes are compact seismic observation systems that integrate a seismic sensor, data logger, GPS, and internal power supply. Their high mobility, combined with technological advancements in broader bandwidth and lower noise levels, has made it easy to conduct effective dense seismic observations. Permanent seismic networks have limitations in unraveling the mechanisms of inland swarm and large earthquakes, and magma plumbing systems in active volcanoes because of their sparsity of the seismic network. This study utilizes nodal seismic observations to achieve high-resolution subsurface structural imaging and precise hypocenter and source process analysis in earthquake and volcanically active regions in the Japanese archipelago. These advancements will contribute significantly to understanding the physical mechanisms driving inland earthquakes and volcanic activity. The target area will be made based on discussions among participants. This project is in its second year as a continuing project. We aim to share the observational data acquired in the previous fiscal year and to date, as well as to promote the effective utilization of high-density seismic observation data. Furthermore, we will promote inter-institutional collaboration by encouraging participation from other organizations in new observations led by participating institutions. Conditions of participation: None List of affiliations for projected participants: Hokkaido University, Hirosaki University, Tohoku University, Yamagata University, The University of Tokyo, Nagoya University, Kyoto University, Kyushu University, Kagoshima University, National Research Institute for Earth Science and Disaster Resilience, National Institute of Advanced Industrial Science and Technology
2026-B-08 Synthesis and distribution of standard polycrystalline minerals for room experiments	○ Takehiko Hiraga (Earthquake Research Institute) • Takehiko Hiraga	We will distribute synthetic highly-dense fine grained mineral aggregates that are suitable for room experiments. Any research groups that focus on measuring mineral/rock physical properties are welcome to join this project. List of affiliations for projected participants: Uni. Tohoku, Univ. Tokyo, NIMS, Shizuoka Univ., Okayama Univ, Ehime Univ., Kyushu. Univ., Hiroshima Univ., Univ. Bayreuth, Univ. Minnesota, Univ. Montpellier, MIT, Imperial College London, Univ. Princeton, Université d'Orléans, École normale supérieure Paris

Project Code Project Title	○ Principal Investigator/ ★ Early-Career Scientist • Contact Person at ERI	Details of the Project and Condition to Participate in the Project
2026-B-09 New Frontiers in Local-Scale Geophysical Research via Ultra- Dense, Multi- Parameter Observations	○Takeo Ito (Nagoya University) •Yosuke Aoki	This project aims to investigate crustal deformation related to seismic and volcanic activity through integrated geophysical observations. We combine GNSS with absolute and relative gravity, leveling, and magnetotelluric (MT) surveys to better understand mass transport, fluid movement, and subsurface structure. Initial observations will focus on Mt. Ontake, where multi-parameter campaigns will be conducted. By integrating data from different physical quantities, we seek to clarify complex deformation processes that cannot be fully resolved by GNSS alone. Field campaigns also serve as training opportunities for students and early-career researchers. Participants will gain hands-on experience with various instruments and analytical approaches, fostering the development of geophysicists with broad, integrative skills. This joint observation project represents the second year of a 3-years collaborative research program. Requirement: Nothing <u>List of affiliations for projected participants</u> Hokkaido University, Tohoku University, University of Tokyo, Nihon University, Toyama University, Kanazawa University, Nagoya University, Kyoto University, Kochi University, Kyushu University, Kagoshima University, National Astronomical Observatory of Japan, National Institute of Polar Research, Geospatial information Authority of Japan, National Research Institute for Earth Science and Disaster Resilience, National Institute of Advanced Industrial Science and Technology, Meteorological Research Institute, National Institute of Information and Communications Technology, RIKEN, Japan Agency for Marine-Earth Science and Technology, Mount Fuji Research Institute
2026-B-10 Developments of Earthquake Location Methods toward the Evaluation of Historical Seismicity	○Motoko Ishise (Yamagata University) •Shigeki Nakagawa	Research Overview: It is generally understood that earthquakes tend to recur in similar locations with similar mechanisms. Therefore, predicting the sources and ground motions of potential future earthquakes, and estimating the associated damage based on these predictions, is extremely useful for disaster preparedness. However, for earthquakes that occurred before the mid-20th century, both the quantity and quality of seismic observation data are insufficient, making it difficult to determine the hypocenters in qualitatively. Furthermore, no objective method has yet been established for determining earthquake sources based on intensity data, resulting in many damaging earthquakes with poorly defined hypocenters. To address these issues, this research project aims to: 1. Compile and organize historical records of past damaging earthquakes through literature review. 2. Establish an objective method for estimating earthquake hypocenters based on seismic intensity data. By implementing these approaches, we aim to comprehensively reassess the hypocenters of historical earthquakes that have occurred throughout recorded history, thereby clarifying the overall pattern of seismic activity in Japan. This will contribute significantly to improving damage estimation based on scientific evidence, particularly for future scenarios such as a potential Tokyo metropolitan earthquake. This project will be carried out through interdisciplinary collaboration among researchers in history, seismology, and statistical science, and will also contribute to the development of an integrated, cross-disciplinary research framework. Participation conditions: None

Project Code Project Title	○ Principal Investigator/ ★ Early-Career Scientist • Contact Person at ERI	Details of the Project and Condition to Participate in the Project
		List of affiliations for projected participants: Yamagata University, The University of Tokyo, Keio University, Akita University, University of Hyogo, Japan Meteorological Agency, National Institute of Advanced Industrial Science and Technology, National Research Institute for Earth Science and Disaster Resilience
2026-B-11 Relationship between short and long term deformation in major active structures based on geodetic, geomorphologic and geologic observations	○Masayuki Murase (Nihon University) •Tatsuya Ishiyama	In major active structures, there is often discrepancy between long and short term deformation. Relationship between short and long term deformation are important because the relationship is related to generation mechanisms of the major active structures In this project, we carry out interdisciplinary research based on geodetic, geomorphologic and geologic observations for the Itoigawa-Sizuoka tectonic line and the Longitudinal Valley Fault in Eastern Taiwan to examine the relation between these two timescales of deformations. List of affiliations for projected participants: Okayama University, Nagoya University, The university of Tokyo, Shinshu University, Hosei University, Nihon University, National Taiwan University, Institute of Earth Sciences, Academia Sinica, National Dong Hwa University, Japan Fisheries Research and Education Agency, Remote Sensing Technology Center of Japan
2026-B-12 Unified Source Modeling for Ground Motion and Tsunami Prediction	○Hiroe Miyake (Interfaculty Initiative in Information Studies, The University of Tokyo) •Takashi Furumura	This study aims to integrate source models for ground motion and tsunami prediction. Ground motion and tsunami damage often occur in combination. There is an urgent need to develop a unified source model that can be used for hazard estimates and countermeasures. Source models that explain ground motion and tsunamis are constructed independently, and predictions are also carried out separately. This study cross-validates the tsunami prediction performance of seismic source models and the ground motion prediction performance of tsunami source models to explore for integrating source models. List of affiliations for projected participants: e.g., Hokkaido University, The University of Tokyo, Kyoto University, Meteorological Research Institute

Project Code Project Title	○ Principal Investigator/ ★ Early-Career Scientist • Contact Person at ERI	Details of the Project and Condition to Participate in the Project
2026-B-13 Study on the spatiotemporal variations of fluids around plate boundaries and their influence on fault slip phenomena through seafloor electromagnetic observations	○Kiyoshi BABA (Earthquake Research Institute) •Kiyoshi BABA	The behavior of various fault slip phenomena along plate boundaries in subduction zones—including regular earthquakes, slow slip events (SSEs), and tectonic tremors—is known to be strongly influenced by fluid distribution and pore fluid pressure. However, the migration pathways of fluids and the spatiotemporal variations in pore pressure remain poorly constrained. This study aims to clarify the influence of fluids on fault slip behavior by conducting seafloor electromagnetic observations and detecting signals related to changes in electrical resistivity structure over time and space. Off the east coast of New Zealand’s North Island, the Hikurangi subduction zone is characterized by the subduction of the Pacific Plate, where a variety of fault slip phenomena occur frequently along the shallow plate interface at depths of around 10 km. This makes it possible to capture spatiotemporal variations in structure at high resolution. As a result, the region is recognized as a globally significant target for scientific investigation. Based on these factors, this study will focus on the Hikurangi subduction zone as a primary research area. This project will be conducted as part of an international collaborative research effort involving researchers from NZ, China, and other countries. <u>List of affiliations for projected participants:</u> Earthquake Research Institute, The University of Tokyo • Earth Sciences New Zealand (NZ) • Victoria University of Wellington (NZ) • Southern University of Science and Technology (China)

Project Code Project Title	○ Principal Investigator/ ★ Early-Career Scientist • Contact Person at ERI	Details of the Project and Condition to Participate in the Project
2027-B-01 Advancing Studies on Land Surface Changes Using Next-Generation SAR Satellite Data	○Ryosuke Doke (Hirosaki University) • Yosuke Aoki	Abundant data from the ALOS series of domestic SAR satellites are being used not only in Earth sciences but also across a wide range of other research fields. The PIXEL Group, established under joint usage of ERI at the University of Tokyo, receives ALOS series SAR data from the Japan Aerospace Exploration Agency (JAXA). It has established a system for sharing this data exclusively with participants in this project, formed a community of SAR researchers in Japan, and played a fundamental role in promoting the spread of analysis techniques and the development of new technologies. Based on the activities of PIXEL, this research project has two main objectives: (1) to advance and promote research on ground surface changes across a wide range of fields—including earthquakes, volcanology, glaciology, landslides, and land subsidence—using increasingly diverse SAR data; and (2) to further promote and expand the SAR community through information sharing and educational activities. The situation surrounding present-day SAR satellites is changing significantly. ALOS-4, launched in July 2024, enables high-frequency observations while maintaining the high spatial resolution of previous satellites; in addition to advancing existing observation targets, it is expected to expand applications to new areas. Furthermore, the launch and operation of next-generation SAR satellites from other countries, such as Sentinel-1C and D and NISAR, are also progressing. In addition to high-frequency observations, ALOS-4 and the Sentinel-1 series enable long-term InSAR time-series analysis through continuous observations from the same orbit as their predecessor satellites. Private-sector small SAR satellite constellations are also under development; high-resolution SAR data now make it possible to detect localized changes in the ground surface that were difficult to identify with conventional observations. With the appearance of such diverse and abundant SAR data, advancing analysis techniques and establishing and sharing optimal analysis methods for each dataset have become urgent tasks. To address these tasks, this research project will conduct training sessions on analysis software—such as “RINC,” which is available within PIXEL—to expand the community and promote the adoption of analysis technologies. Furthermore, to provide a framework for information sharing, we will hold research meetings to share cutting-edge research findings and updates on technological development. Through this series of activities, we seek to further expand the PIXEL community and ultimately foster the launch of large-scale research projects. List of affiliations for projected participants: The University of Tokyo, Hokkaido University, Tohoku University, Hirosaki University, University of Tsukuba, Tokyo Denki University, Tokyo Metropolitan University, Institute of Science Tokyo, Tokyo City University, University of Aizu, Nihon University, Toyama University, Nagaoka University of Technology, Nagoya University, Kyoto University, Kyushu University, Kagoshima University, Kagawa University, National Research Institute for Earth Science and Disaster Resilience, Japan Meteorological Agency, Meteorological Research Institute, Meteorological College, Hokkaido Research Organization, Japan Aerospace Exploration Agency, Public Works Research Institute, Mount Fuji search Institute, Hot Springs Research Institute of Kanagawa Prefecture, National Institute of Advanced Industrial Science and Technology

Project Code Project Title	○ Principal Investigator/ ★ Early-Career Scientist • Contact Person at ERI	Details of the Project and Condition to Participate in the Project
2027-B-02 Differentiable Solid Earth Science: Integration of Observations, Numerical Simulations, and Deep Learning	★Ryoichiro Agata (JAMSTEC) • Shin-ichi Ito	Differentiable programming enables efficient computation of gradients of outputs or objective functions with respect to inputs and model parameters by making entire computational workflows, including numerical simulations and machine-learning models, automatically differentiable. Such gradients are central to inverse problems in solid Earth science, including the estimation of subsurface structures, physical properties, hypocentral parameters, and fault-slip distributions. Conventional approaches, however, often require problem-specific adjoint codes, linearization, or other technically demanding implementations. Recent advances in deep learning (DL) and AI have greatly improved fast and flexible automatic differentiation frameworks. Their integration with numerical simulation, data assimilation, Scientific Machine Learning (SciML), inverse analysis, and uncertainty quantification may enable closer coupling of observational data and physical models. Nevertheless, practical knowledge concerning differentiable implementations of existing simulation codes, gradient verification, computational cost, memory requirements, and limitations remains insufficiently shared across solid Earth science. This project aims to establish “differentiable solid Earth science” by connecting observations, numerical simulations, and DL/SciML within a common differentiable programming framework. We will share relevant domestic and international studies and practical experience, and explore the differentiable implementation, migration, and verification of existing simulation codes with support from AI agents. We will compare computed gradients with those obtained using numerical methods such as finite differences and conventional adjoint methods, and evaluate numerical accuracy, computational cost, and memory efficiency. We will also apply these approaches to real-data inverse problems, including subsurface structure, hypocenter and fault-slip estimation, and data assimilation, while developing reusable knowledge, codes, and documentation. To support these activities, we plan to organize study meetings, workshops, tutorials, and hackathons. We welcome researchers and students in seismology, geodesy, volcanology, geomagnetism and electromagnetism, rock mechanics, geodynamics, automatic differentiation, numerical analysis, data assimilation, deep learning, SciML, inverse problems, uncertainty quantification, and scientific computing with AI agents. No prior experience in differentiable programming is required. We broadly invite those who wish to make existing simulation codes or inverse-problem workflows differentiable, those who can share relevant methods, implementations, or datasets, and those interested in jointly developing example problems and benchmark cases. <u>List of affiliations for projected participants:</u> Earthquake Research Institute, Graduate School of Information Science and Technology, The University of Tokyo, The Institute of Statistical Mathematics, Kyoto University, Osaka University, Prefectural University of Hiroshima, Japan Agency for Marine-Earth Science and Technology, RIKEN, Chuo University, University of Tsukuba University

Project Code Project Title	○ Principal Investigator/ ★ Early-Career Scientist • Contact Person at ERI	Details of the Project and Condition to Participate in the Project
2027-B-03 Field Observations of Magma Transport Processes at Mid-Ocean Ridges in Response to Surface Load Variations	★Masakazu Fujii (National Institute of Polar Research) •Takehi Isse	This project investigates how surface loading associated with glacial and sea-level fluctuations influences magma generation, transport, and eruption processes at mid-ocean ridges. The study focuses on the Pacific–Antarctic Ridge and combines multibeam bathymetric mapping, multichannel seismic reflection surveys, deep-towed magnetic observations, rock dredging, and sediment coring including tephra layers. By integrating geophysical observations with geological and geochemical analyses, we aim to link subsurface structure, magnetization, chronology, and petrological characteristics, providing new insights into submarine volcanism and oceanic crustal formation. We welcome researchers with expertise in ocean floor geoscience, marine geophysics, multichannel seismic exploration, geomagnetism, marine seismology, petrology, volcanology, geochemistry, geochronology, paleomagnetism, sedimentology, micropaleontology, glacial isostatic adjustment (GIA), and numerical modeling. Participants are encouraged to contribute through shipboard observations, sample analyses, data interpretation, or numerical simulations according to their expertise. <u>List of affiliations for projected participants:</u> •National Institute of Polar Research (NIPR) •National Institute of Advanced Industrial Science and Technology (AIST) •Akita University •Chiba Institute of Technology •Tokyo University of Marine Science and Technology (TUMSAT) •Kyushu University •Hiroshima University •Nagoya University •Tokai University •Japan Agency for Marine-Earth Science and Technology (JAMSTEC) •Atmosphere and Ocean Research Institute, The University of Tokyo (AORI) •Earthquake Research Institute, The University of Tokyo (ERI)
2027-B-04 International use of geophysical observation instruments and records	○Makoto OKUBO (Kochi University) •Akito Araya	The crustal activities observation networks and their associated technologies for the continuous monitoring on the surface are advancing rapidly, both in Japan and abroad. This project focuses on researching of new analysis techniques and interpreting for crustal deformation data, disseminating, and ensuring the succession of these findings through collaboration with researchers across diverse fields and international borders. In this project, the following three points are treated as important tasks to be resolved or addressed: Task①: Currently, there is a critical shortage of early-career researchers specializing in crustal activities yet training them requires a significant amount of time. To address this shortage, we are recruiting talent widely, looking beyond domestic boundaries. We will promote the continuous observation and analysis of crustal activities, centering on requests for joint research from overseas countries and disseminate of findings and technologies. Task②: Crustal activities observations allow for the simultaneous assessment of inter-seismic (quiescent period) changes and variations associated with earthquakes. Standardizing usage procedures and packaging analysis tools are essential to ensure these observational records are reliably passed on to future generations. Such initiatives not only clarify the necessary analysis methods but also accelerate the development of new techniques. Furthermore, clearly defining which tools should be used for specific purposes significantly lowers the barriers to entry for new researchers, thereby contributing to the resolution of ①. Task ③: In regions with active crustal deformation like Japan, observational Instruments require high precision and long-term stability to detect not only seismic events but also changes occurring during the inter-seismic period; however, such high performance may be

Project Code Project Title	○ Principal Investigator/ ★ Early-Career Scientist ▪ Contact Person at ERI	Details of the Project and Condition to Participate in the Project
		excessive for other limited research applications. For example, modularizing extensometers by separating essential components from optional extended functions enhances adaptability to diverse observation targets and improves maintainability. This procedure lowers the barriers to establishing new observation sites and facilitates the transfer and deployment of strain observation technology to overseas and the next generation, thereby contributing to the resolution of ①. This project actively invites applications from individuals who possess (1) crustal activities observation, analysis methods, and (2) technology and know-how for developing equipment, or (3) new technologies and methods should be introduced. As well as from those considering new research topics or observation areas that utilize observational technology. List of affiliations for projected participants: Hokkaido Univ., Univ. of Tokyo, Tokyo City Univ., Tsukuba Univ., Nagoya Univ., Kyoto Univ., Kyushu Univ., Kochi Univ., Kagoshima Univ., Meteorological Research Institute, National Institute of Advanced Industrial Science and Technology, Hot Spring Research Institute, Vietnam Academy Science and Technology and Academy of Sciences of the Republic of Uzbekistan
2027-B-05 Long-term Preservation Processes of the 2024 Noto Peninsula Tsunami Deposits and Improved Identification of Paleotsunami Deposits	★Masaki Yamada (Shinshu University) • Osamu Sandanbata	Tsunami deposits provide crucial geological records for reconstructing the history of past earthquakes and tsunamis beyond the historical record. However, the long-term evolution of geochemical signatures derived from seawater within tsunami deposits remains poorly understood, posing a major challenge for the identification and interpretation of paleotsunami deposits. This project aims to clarify the long-term preservation processes of tsunami deposits formed by the 2024 Noto Peninsula tsunami through continuous post-event monitoring. The principal investigator has secured an agricultural field where the tsunami deposits have been preserved, enabling repeated investigations at the same site and the acquisition of a unique long-term dataset covering at least six years after the tsunami. Integrated analyses, including grain-size measurements, X-ray CT imaging, ITRAX XRF core scanning, ICP-MS, isotope geochemistry, and hydrological monitoring of groundwater and precipitation, will be conducted to evaluate the preservation of marine geochemical signatures and the factors controlling their temporal changes. The results will provide robust geochemical criteria for improving the identification of paleotsunami deposits. Furthermore, preliminary coring within the tsunami inundation area has identified multiple event sand layers beneath the 2024 tsunami deposit. This collaborative project will conduct additional coring campaigns across the Noto Peninsula and integrate regional correlation, chronological dating, sedimentological analyses, and geochemical investigations to reconstruct the earthquake and tsunami history over the past several thousand years. By integrating studies of the preservation processes of modern tsunami deposits with investigations of paleotsunami deposits within the same region, this project aims to advance methods for identifying paleotsunami deposits and to establish a scientific foundation for future tsunami hazard assessment. We welcome researchers and students interested in field investigations of tsunami deposits, sediment coring, sedimentological and geochemical analyses, chronological dating, micropaleontological analyses, and hydrological observations. List of affiliations for projected participants: The University of Tokyo, Shinshu University, Kyoto University, Tohoku University, University of Tsukuba, Kanazawa University, Tokushima University, Geological Survey of Japan, National Institute of Advanced Industrial Science and Technology (AIST), Agency for Marine-Earth Science and Technology (JAMSTEC)

Project Code Project Title	○ Principal Investigator/ ★ Early-Career Scientist • Contact Person at ERI	Details of the Project and Condition to Participate in the Project
2027-B-06 Pioneering and demonstrating small-body seismology.	★Naoya Sakatani (Japan Aerospace Exploration Agency (JAXA)) • Akito Araya	Seismological investigations have established a solid foundation as a powerful method for probing the internal structure of planetary bodies in geophysics. This research project aims to develop a seismic observation package for exploring the internal structure of small bodies, such as asteroids and comets within the Solar System. Because small bodies exist under extreme environmental conditions that differ significantly from those on Earth—including vacuum, low and high temperatures, microgravity, and highly porous, strongly scattering regolith layers—it is difficult to directly apply conventional terrestrial seismic exploration methods using seismometers. Therefore, through the development of a seismic observation package specifically designed to operate under these environmental conditions, we aim to establish a new methodology for investigating the internal structure of small bodies. The major research objectives are as follows: (1) Demonstration of Active Seismic Exploration Techniques For seismic investigations of small bodies, we will evaluate both passive and active exploration approaches. Passive exploration utilizes naturally occurring seismic sources such as meteorite impacts and cometary activity. Active exploration employs artificial seismic sources, for example by applying pulse inputs to a geophone integrated within the observation package. Through this project, we will conduct proof-of-concept demonstrations and technological validation of both approaches. (2) Development of an Autonomous Seismic Observation System To realize extraterrestrial seismic exploration, we will develop a compact and lightweight system capable of autonomous operation, including data acquisition, recording, communication, and long-term survivability. The autonomous observation technologies developed for this seismic package are expected to have applications beyond small-body exploration. Potential terrestrial applications include subsurface investigations and monitoring in hazardous or inaccessible environments such as volcanic regions and disaster sites, where direct human access is difficult. (3) Simulation and Analysis of Seismic Wave Propagation on Small Bodies We will develop analytical methods for constraining the internal structure of small bodies using seismic data acquired on their surfaces. In particular, we aim to estimate internal heterogeneity, material composition, and pore-size distributions through the analysis of seismic-wave scattering characteristics. To achieve this objective, we will develop numerical simulation tools and corresponding data-analysis methodologies. As plans for seismic exploration of small bodies are becoming increasingly concrete in Japan and internationally, this research will play a key role in establishing the technological foundations required to transform these concepts into future space missions. Through this development effort, we aim to pioneer the emerging field of small-body seismology while also contributing to advances in terrestrial seismology and disaster-mitigation technologies through the transfer of knowledge and techniques. We welcome ambitious researchers from diverse disciplines to participate in this challenging endeavor. <u>List of affiliations for projected participants:</u> Japan Aerospace Exploration Agency (JAXA), The University of Tokyo, Okayama University, Université Paris Cité, Osaka Kyoiku University, National Institute of Advanced Industrial Science and Technology (AIST), Japan Agency for Marine-Earth Science and Technology (JAMSTEC), National Institute of Polar Research (NIPR), Kochi University of Technology, The University of Aizu

Project Code Project Title	○ Principal Investigator/ ★ Early-Career Scientist • Contact Person at ERI	Details of the Project and Condition to Participate in the Project
2027-B-07 Integration of Historical Tsunami Investigation and Probabilistic Tsunami Hazard Assessment in the Shirahama Area, Wakayama Prefecture	★Yuchen Wang (JAMSTEC) • Shingo Watada	The Shirahama area of Wakayama Prefecture has repeatedly been affected by major earthquakes and tsunamis generated along the Nankai Trough, making it an important target area for assessing future tsunami hazards. However, substantial uncertainties remain regarding the local tsunami history, inundation extent, and recurrence intervals. A region-specific tsunami hazard assessment integrating historical records with numerical modeling is therefore needed. This collaborative research will conduct archival and field investigations of historical tsunamis in the coastal lowlands of the Shirahama area. Historical documents will be compiled and examined, and, where necessary, sediment coring and sampling, grain-size analysis, chronological dating, and related analyses will be performed to reconstruct the timing, spatial distribution, and inundation extent of past tsunami events. These results will be used to establish the tsunami history of the Shirahama area and provide site-specific constraints for numerical simulations. Furthermore, a probabilistic tsunami hazard assessment (PTHA) will be conducted by accounting for diverse earthquake scenarios along the Nankai Trough, their occurrence frequencies, and model uncertainties. Numerous tsunami propagation and inundation simulations will be performed, taking into account source models, offshore bathymetry and onshore topography, and tsunami amplification and attenuation processes in the coastal zone. Probability distributions of tsunami height, inundation depth, arrival time, and related parameters in the Shirahama area will be evaluated. Event histories and inundation extents obtained from historical tsunami investigations will be used for PTHA scenario selection and validation, thereby linking evidence over geological timescales with probabilistic analysis. A pressure gauge has been installed by the Japan Agency for Marine-Earth Science and Technology (JAMSTEC) along the coast of Kasabo Fishing Port in Shirahama Town. Long-term observations of sea-level variations, including tsunamis and storm surges, are planned to clarify coastal tsunami attenuation processes in combination with offshore DONET data. The Japan Meteorological Agency (JMA) also plans to install coastal CCTV cameras. These pressure and video observations will provide an important basis for directly capturing tsunami waveforms, water-level changes, and inundation conditions after tsunamis reach the coast. By integrating historical tsunami investigation, PTHA, and these new coastal observations, this project aims to evaluate the tsunami history, occurrence probability, coastal response, and actual disaster conditions in the Shirahama area more comprehensively, and to establish a research foundation that contributes to local tsunami disaster prevention and mitigation. <u>List of affiliations for projected participants:</u> The University of Tokyo, Shinshu University, Tokushima University, Japan Agency for Marine-Earth Science and Technology (JAMSTEC), and Japan Meteorological Agency (JMA).

Project Code Project Title	○ Principal Investigator/ ★ Early-Career Scientist • Contact Person at ERI	Details of the Project and Condition to Participate in the Project
2027-B-08 Quantitative Understanding of Earth Dynamics: Statistical and Computational Data Science Using Large-Scale Geoscience Datasets	★Satoshi Matsuno (Atmosphere and Ocean Research Institute, The University of Tokyo) • Hiromichi Nagao	The application of statistical and computational data science is advancing our understanding of Earth's dynamics. Geological events occur through physical and chemical processes associated with the transfer of energy and mass, resulting in geophysical and geochemical data that record the present state and history of Earth's interior. Recent progress in large-scale data accumulation enables integrated analyses using statistical and computational data science. These advances are opening opportunities for estimating and interpreting quantitative parameters that characterize physical and chemical processes within Earth. This research project aims to promote geological interpretation through the construction of large-scale geophysical and geochemical datasets by applying statistical and computational data science. Although statistical and computational data science has been applied to geoscience datasets in the past, this project will place additional emphasis on collaboration with the measurement and analytical fields. By integrating the entire research process—from data acquisition to analysis and interpretation—the project seeks to further accelerate interdisciplinary research. The objective of this project is to overcome long-standing challenges in data acquisition, accumulation, and analysis. Emphasis will be placed on developing high-throughput approaches for the acquisition of petrological and geochemical data. In addition, new analytical methods will be developed and existing ones improved. This project leverages expertise in statistical and computational data science to address challenges arising from the unique characteristics and increasing scale of geoscience data. Through these efforts, the project will deepen the quantitative understanding of Earth's dynamics, including processes such as mass transfer and chemical reactions. This collaborative research project will provide opportunities for researchers in geoscience, statistical and computational data science, analytical chemistry, and synchrotron radiation science to interact and pursue research that extends beyond the boundaries of their respective disciplines. We welcome the participation of researchers who are eager to develop new interdisciplinary collaborations. <u>List of affiliations for projected participants:</u> JAMSTEC, AIST, Hokkaido Univ., Tohoku Univ., Akita Univ., Univ. Tokyo, Kanazawa Univ., Kyoto Univ., Kagoshima Univ., Hiroshima Univ., Nagoya Univ., JASRI

Project Code Project Title	○ Principal Investigator/ ★ Early-Career Scientist • Contact Person at ERI	Details of the Project and Condition to Participate in the Project
2027-B-09 New Frontiers in the Analysis of Volcanic Surface Phenomena Using Vision–Language Models	★Takafumi Maruishi (National Research Institute for Earth Science and Disaster Resilience (NIED)) • Yujiro Suzuki	A wide variety of image data have been accumulated for phenomena occurring at or above volcanic surfaces, including satellite imagery, ground-based camera footage, photographs of collected eruptive products, and microscopic images. These images contain important information for understanding volcanic activity. However, because they differ greatly in data type and observational scale, they have traditionally been analyzed separately. Linguistic descriptions such as “a dark-colored plume is rapidly spreading eastward from the crater” or “the ejecta are angular in shape and contain abundant dark crystals” provide a common framework for linking features observed in different types of images and for communicating their volcanological significance among researchers. Recently developed vision–language models, including ChatGPT, can recognize colors, shapes, textures, and structures in images and describe these features in natural language. In this project, we will integrate observations of plume development, the macroscopic appearance of collected eruptive products, and microscopic textures through descriptions generated using vision–language models. This approach will enable us to relate remotely observed phenomena during eruptions to evidence of magma vesiculation, crystallization, and fragmentation preserved in post-eruption samples. Rather than merely classifying individual images, we aim to interpret these observations as interconnected records of a continuous eruptive process. We will further link image-derived linguistic descriptions with physical models of plume rise, volcanic ash transport, magma vesiculation, and fragmentation. By describing both observed images and model-predicted plume morphologies and pyroclast textures within a common linguistic framework, we will develop a new analytical approach that allows seamless comparison and iteration between observations and simulations. This framework will be used to constrain eruption conditions and magma properties. The project will bring together researchers working on language-model-based analysis, observations of volcanic surface phenomena, and physical modeling to develop an interdisciplinary research program aimed at advancing the analysis of volcanic processes. Participation requirements: Participants should have an interest in the research topics described above and expertise in at least one of the following areas: volcano monitoring and observation, analysis of volcanic products and rock textures, numerical modeling, image or video analysis, machine learning, or vision–language model analysis. <u>List of affiliations for projected participants:</u> National Research Institute for Earth Science and Disaster Resilience, Earthquake Research Institute of the University of Tokyo, Kyoto University, Institute of Statistical Mathematics, RIKEN, National Institute of Advanced Industrial Science and Technology, and other related institutions.

Project Code Project Title	○ Principal Investigator/ ★ Early-Career Scientist • Contact Person at ERI	Details of the Project and Condition to Participate in the Project
2027-B-10 Probing Fault-Strengthening Mechanisms That May Account for the Fracture Energy of Large Earthquakes	○ Osamu Kuwano (JAMSTEC) • Masao Nakatani	Fracture energies inferred for large earthquakes and those obtained from conventional laboratory friction experiments differ by several orders of magnitude. The physical origin of this discrepancy remains unresolved, and the proposed mechanisms have yet to be adequately tested quantitatively. This project will combine fault friction experiments—including long-duration hold tests and experiments under hydrothermal conditions—with numerical experiments using the discrete element method to quantify the relationships among the magnitude of frictional healing, slip-weakening distance, and fracture energy. We will focus not only on contact-scale frictional healing but also on the formation and evolution of mesoscale structures within a granular layer and on their reorganization during slip. We will test whether these processes can quantitatively account for the fracture energies inferred for large earthquakes. List of affiliations for projected participants: Japan Agency for Marine-Earth Science and Technology, University of Tokyo, Shimane University, Ritsumeikan University, Osaka University
2027-B-11 Preservation and Utilization of Historical Observation Records	○ Yasuyuki Kano (Earthquake Research Institute) • Yasuyuki Kano	Regarding historical records (analog seismograph/tiltmeter/tide-gauge charts, etc.) of earthquakes, tsunamis, crustal deformation, and geodetic observations, which are dispersed and preserved across universities and research institutions in Japan and abroad, this project will first conduct a survey of their whereabouts, preservation condition, and risk of deterioration, in order to grasp the nationwide storage situation. Based on the survey results, digitization (scanning and photographing) will be carried out, prioritizing records that are at risk of deterioration or disposal. Including data already made publicly available through the databases of individual institutions, the records will be aggregated across institutions to develop a prototype database (digital archive) using a unified metadata format and image format. The resulting digital archive will be made publicly available in a searchable and downloadable form, and will also be used for analyses—such as waveform extraction and slow-earthquake detection—leveraging information technology (AI). In parallel, discussions, examinations, and information-sharing regarding the utilization and preservation of historical records will be carried out. This research aims to prevent the loss and deterioration of historical records while promoting their utilization, and to advance the understanding of long-term seismic and volcanic activity. There are no particular requirements for participation. List of affiliations for projected participants: The University of Tokyo, Hot Springs Research Institute of Kanagawa Prefecture, National Research Institute for Earth Science and Disaster Resilience (NIED), National Museum of Nature and Science, Association for the Development of Earthquake Prediction, Hokkaido University, Tohoku University, Nagoya University, Kyoto University, Kyushu University, Japan Meteorological Agency, Abuyama Earthquake and Disaster Prevention Science Museum

【Appendix C】 FY2027 Specific Research Project (C) Titles

Project Code Project Title	○ Principal Investigator ▪ Contact Person at ERI	Details of the Project and Condition to Participate in the Project
-	-	There are no projects in FY2027.

【Appendix D】 FY2027 List of Earthquake and Other Earth Science Data and Research Materials

Please also refer the our database page (<https://www.eri.u-tokyo.ac.jp/en/publication/>)

Joint Usage Code and Name of Data/ Research Materials	Contact person (○Responsible person)	Conditions of Use and Related URL	Application periods
2027-D-01 WSSN Seismogram microfiche	○Head of Committee for old seismograms and mareograms	Advance appointment required. Inquire about paper supplies. https://www.eri.u-tokyo.ac.jp/wwssn/filmlist.html	Any time, as needed.
2027-D-02 Historical seismograms	○Head of Committee for old seismograms and mareograms	Use microfiche archives. Original records can be used with ERI staff. https://www.eri.u-tokyo.ac.jp/susu/ (Japanese version only)	Any time, as needed.
2027-D-03 Seismological Bulletin, Selected newspaper articles, Foreign seismological reports	○Head of Committee for old seismograms and mareograms	Cameras must be provided by users. Built-in lighting and photography stands are available for use. Photography may be restricted based on the condition of materials. Bulletins: https://www.eri.u-tokyo.ac.jp/record-J/index.html Foreign seismological reports: https://www.eri.u-tokyo.ac.jp/record-W/index.html	Any time, as needed.
2027-D-04 Earthquake data of Research Center for Geophysical Observation and Instrumentation	○Head of Research Center for Geophysical Observation and Instrumentation	Data should be used under the treatment of earthquake data of Japanese universities.	—
2027-D-05 Nation-wide earthquake data transfer by satellite communication system and other facilities	○Head of Research Center for Geophysical Observation and Instrumentation	Application required under the treatment on earthquake data transfer by satellite communication system. http://eoc.eri.u-tokyo.ac.jp/eisei_system/riyou/data_jushin_riyou.htm (Japanese version only)	—
2027-D-06 Japan University Network Earthquake Catalog(JUNEC)	○Head of the Research Center for Monitoring Japan Arc	Hypocenter data can be accessed through anonymous ftp. ftp://ftp.eri.u-tokyo.ac.jp/pub/data/junec/ Arrival time data can be provided by CD, according to rule among the universities.	Any time, as needed.
2027-D-07 Observation data of Asama, Izu-Oshima, Kirishima, and Fuji volcanoes	○Head of Volcano Research Center	Must contact with the responsible person prior to the application.	Any time, as needed.
2027-D-08 Broadband Seismic Waveform Data	○Head of Ocean Hemisphere Research Center	none. http://ohpdm.eri.u-tokyo.ac.jp/dataset/permanent/seismological/index.html	Any time, as needed.
2027-D-09 New J-array seismogram data	○Head of the Research Center for Monitoring Japan Arc	Can be used through website. http://jarray.eri.u-tokyo.ac.jp/	Any time, as needed.

Joint Usage Code and Name of Data/ Research Materials	Contact person (○Responsible person)	Conditions of Use and Related URL	Application periods
2027-D-10 Earthquake data in Nikko region, Northern Kanto, Japan, in 1993	○Head of Research Center for Geophysical Observation and Instrumentation	Treatment of data usage by participants of the 1993 Nikko seismic observation.	—
2027-D-11 Strong motion observation database (mainly Suruga bay, Izu peninsula, and Ashigara valley)	○Takashi Furumura	https://smsd.eri.u-tokyo.ac.jp/smad/	Any time, as needed.
2027-D-12 Copies of old historical documents and interpretation	○Yasuyuki Kano	No limitation. Copies and interpretation of a part of special database for historical materials of ERI library: https://www.eri.u-tokyo.ac.jp/tokubetsu/ (In Japanese only)	Any time, as needed.
2027-D-13 Goelectromagnetic Observation Database	○Yoshiya Usui, Takao Koyama	Must contact with the responsible person prior to the application.	Any time, as needed.
2027-D-14 Provisional data at Yatsugatake geo-electromagnetic observatory	○Tsutomu Ogawa	Those who wish to use the data should contact the contact person at the ERI for arrangement and submit an application.	Any time, as needed.
2027-D-16 Aerial photographs of Japan	○ERI Library	Number of holding sheets: 44,999 This collection is for research purposes only: active fault research, seismology, volcanology, tectonics, etc. Please have a request at the service counter of ERI library. https://www.eri.u-tokyo.ac.jp/toshu/materials-e/collections.html	Any time, as needed.
2027-D-17 Digital images of tsunami waveforms	○Head of Committee for old seismograms and mareograms	System of digital images of tsunami waveforms. https://www.eri.u-tokyo.ac.jp/tsunamidb/ (In Japanese only)	Any time, as needed.
2027-D-18 Superconducting Gravimeter Data	○Yuichi Imanishi	Must contact with the responsible person prior to the application.	Any time, as needed.
2027-D-19 Special Project for Earthquake Disaster Mitigation in the Tokyo Metropolitan Area Data(2008-2011)	○Head of Research Center for Geophysical Observation and Instrumentation	Must contact with the responsible person prior to the application. https://www.eri.u-tokyo.ac.jp/shuto/index.html (In Japanese only)	Any time, as needed.
2027-D-20 Special Project for Reducing Vulnerability for Urban Mega Earthquake Disasters Data(2012-2016)	○Head of Research Center for Geophysical Observation and Instrumentation	Must contact with the responsible person prior to the application. https://www.eri.u-tokyo.ac.jp/project/toshi/ (In Japanese only)	Any time, as needed.
2027-D-21 Digital data of damage from old earthquakes	○Yasuyuki Kano	Digital dataset of earthquake damage and its location for the 1923 Kanto earthquake etc. Please contact the responsible person prior to application.	Any time, as needed.

【Appendix F】

FY2027 List of Facilities, Observation Equipment, and Laboratory Equipment

(Facilities)

Joint Usage Code and Name of Facility/Equipment	Information of Facility	Contact person (○Responsible person)	Conditions of Use and Remarks	Application periods
2027-F1-01 Seismic Observation Facilities	Aburatsubo Geophysical Observatory Nokogiriyama Geophysical Observatory Wakayama Seismological Observatory Hiroshima Seismological Observatory Shin-etsu Seismological Observatory Fujigawa Geophysical Observatory Muroto Geophysical Observatory Other observatories and facilities	○Head of Research Center for Geophysical Observation and Instrumentation		—
2027-F1-02 Yatsugatake Geo-electromagnetic Observatory		○Tsutomu Ogawa	Must contact with the responsible person prior to the application.	Any time, as needed.
2027-F1-03 Asama Volcano Observatory Komoro observatory of Seismology and Volcanology Izu-Oshima Volcano Observatory Kirishima Volcano Observatory		○Head of Research Center for Geophysical Observation and Instrumentation		—

(Observation Equipment)

Joint Usage Code and Name of Facility/Equipment	Information of Equipment	Contact person (○Responsible person)	Conditions of Use and Remarks	Application periods
2027-F2-01 Data receiver system by satellite communication for a nation-wide seismic telemetry network.	http://eoc.eri.u-tokyo.ac.jp/eisei_system/riyou/data_jushin_riyou.htm (In Japanese version only)	○Eiji Kurashimo	Must contact with the responsible person prior to the application. It is a rule that the users install it and maintain it by themselves. Another application about data use is needed.	Any time, as needed.
2027-F2-02 Temporal seismic data acquisition systems (incl. data transfer units, seismometers and recording units)	http://eoc.eri.u-tokyo.ac.jp/eisei_system/riyou/vsat_riyou.htm (In Japanese version only) http://eoc.eri.u-tokyo.ac.jp/eisei_system/riyou/chijo_souti.htm (In Japanese version only)	○Eiji Kurashimo	Must contact with the responsible person prior to the application. Not always available for period of specific research projects.	Any time, as needed.

Joint Usage Code and Name of Facility/Equipment	Information of Equipment	Contact person (○Responsible person)	Conditions of Use and Remarks	Application periods
2027-F2-04 Broadband-MT instruments	1) Main unit: <i>Metronix</i> ADU07e 22 sets ADU08e 2 sets <i>NT System Design</i> ELOGMT 7 sets ELOG1K 17 sets 2) Induction coils: <i>Metronix</i> MFS06 21 coils MFS07 4 coils MFS06e 22 coils MFS07e 45 coils MFS12e 3 coils <i>Phoenix</i> MTC50 3 coils Basically, 5 component data (2-component E-field and 3-component H-field) can be measured. Sample frequency of ADU07e is 2 ⁿ Hz up to 524 kHz. In addition, we have some other items necessary to the MT survey, such as, various batteries and electrodes.	○Yoshiya Usui, Takao Koyama	Must contact with the responsible person prior to the application. Please recognize that we cannot let you use the instruments if we have some field campaigns.	Any time, as needed.
2027-F2-06※ <u>Marine heat flow measurement system</u>	The system consists of a data logger, probes, temperature sensors, weight, and an acoustic pinger. Heat flow is measured by penetrating a probe equipped with multiple temperature sensors into seafloor sediment. An instrument for thermal conductivity measurement on sediment samples (Quick Thermal Conductivity Meter, Kyoto Electronics Manufacturing Co., Ltd.) is also available.	○Masanao Shinohara	Users must have an experience in marine heat flow measurement, unless they conduct cooperative research with the Earthquake Research Institute.	Any time, as needed.
2027-F2-07 Portable broadband seismic observation system(1)	Broadband seismometers: 29 sets CMG3T,STS2 Recorders: REFTEK130	○Takehi Isse, Akiko Takeo	Data have to become open in public at the data center of OHRC, ERI after 2-3 years of moratorium period. For the system availability, consult with the contact person.	Any time, as needed.
2027-F2-08※ <u>Portable broadband seismic observation system (2)</u>	Broadband seismometers 14 sets (Nanometrics Inc., Canada) Trillium 120PA Number of equipment: 14	○Yohei Yukutake	Must contact with the responsible person prior to the application.	Any time, as needed.

Joint Usage Code and Name of Facility/Equipment	Information of Equipment	Contact person (○Responsible person)	Conditions of Use and Remarks	Application periods
2027-F2-09※ <u>Absolute gravimeter</u>	FG5 gravimeter with 1-2 2 sets microgal accuracy manufactured by microg- Lacoste corp., U.S.A.	○Yuichi Imanishi	Must contact with the responsible person prior to the application.	Any time, as needed.
2027-F2-10※ <u>Lacoste & Romberg gravimeter</u>	Spring gravimeter with 10 2 sets microgal accuracy manufactured by microg- Lacoste corp., U.S.A.	○Yuichi Imanishi	Operational instruction should be understood.	Any time, as needed.
2027-F2-11※ Potable strong motion observation system	Potable strong motion observation system(Revision of SMAR-6A3P) equipment with amplifier 14 units (JEP-6A3P sensors with C651V/G) (Akashi Corporation) equipment without amplifier 5 units (JEP-6A3P sensors with 10V/G) (Akashi Corporation) logger LS-7000XT 10 units (Hakusan Corporation)	○Takashi Furumura	Must contact with the responsible person prior to the application.	Any time, as needed.
2027-F2-12 Volcanic gas observation system	Volcanic gas observation 1 set system	○Masaaki Morita	Must contact with the responsible person prior to the application.	Any time, as needed.
2027-F2-13 Ultra-long period MT instruments	Ukraine Systems with fluxgate sensors LEMI-417 6 sets 3 magnetic and 4 electric field components with 1 s sampling Tierra Technica systems with fluxgate sensors U43 12 sets U36MD 3 sets UY44 1 sets U43: 3 magnetic and 2 electric field components with 1s sampling U36MD: 3 magnetic and 2 electric field components with 1s sampling UY44: 3 magnetic field and 2 tilt components with 1s sampling	○Yoshiya Usui, Takao Koyama, Hisayoshi Shimizu	Must contact with the responsible person prior to the application. Please recognize that we cannot let you use the instruments if we have some field campaigns.	Any time, as needed.
2027-F2-14 High accuracy gyro- compass system	A SOKIA's GP1X manual 1 system gyro-compass system. Measurement accuracy is 20 angle-seconds.	○Yoshiya Usui, Takao Koyama, Hisayoshi Shimizu	Must contact with the responsible person prior to the application.	Any time, as needed.

Joint Usage Code and Name of Facility/Equipment	Information of Equipment	Contact person (○Responsible person)	Conditions of Use and Remarks	Application periods
2027-F2-16 Airborne survey equipment	DJI Matrice 400 1 set DJI Zenmuse H30T 1 system DJI Zenmuse L2 1 system DJI Zenmuse L3 1 system Gem Systems GSMP-35U 1 set for drone Matrice 400: https://enterprise.dji.com/matrice-400 Zenmuse H30T: https://enterprise.dji.com/zenmuse-h30-series/specs Zenmuse L2: https://enterprise.dji.com/zenmuse-l2 Zenmuse L3: https://enterprise.dji.com/zenmuse-l3 GSMP-35U: https://www.gemsys.ca/uav-magnetometers/ Supported aircraft: Zenmuse H30T: DJI M400, M350RTK, M300RTK with DJI RC Plus controller Zenmuse L2: DJI M400, M350RTK, M300RTK with DJI RC Plus controller Zenmuse L3: DJI M400 GSMP-35U: DJI M400, M350RTK, M300RTK	○Takao Koyama, Takao Ohminato	Must contact with the responsible person prior to the application.	Any time, as needed.

(Laboratory Equipment)

Joint Usage Code and Name of Facility/Equipment	Information of Equipment	Contact person (○Responsible person)	Conditions of Use and Remarks	Application periods
2027-F3-01 Controlled Seismic source	Minivibrator T-15000 (IVI, Inc.) 1 unit	○Tatsuya Ishiyama	Users are required to have precise and detailed knowledges on how to use the controlled Seismic source.	Any time, as needed.
2027-F3-02 Computer system of the Research Center for Monitoring Japan Arc	https://eic-support.eri.u-tokyo.ac.jp/index-e.html 1 system	○Head of the Research Center for Monitoring Japan Arc	Limited to academic use and along with the purpose of ERI, according to the rule. Apply directly to ERI, if joint usage fund is not needed.	Any time, as needed.
2027-F3-03 Rock Fracture Apparatus with Data Acquisition System	https://www.eri.u-tokyo.ac.jp/gijyutsubu/jikken/ 1 system (In Japanese version only)	○Masao Nakatani	Must contact with the responsible person prior to the application.	Any time, as needed.
2027-F3-05 XRF spectrometer	RIGAKU Wavelength dispersive-X-ray fluorescence spectrometer ZSX Primus II 1 system	○Fukashi Maeno	Must contact with the responsible person prior to the application.	Any time, as needed.

Joint Usage Code and Name of Facility/Equipment	Information of Equipment	Contact person (○Responsible person)	Conditions of Use and Remarks	Application periods
2027-F3-06※ <u>Vibration testing system</u>	EMIC Corp. Vibration testing system 1 system F-1400BD/LAS15 Horizontal or vertical shaking table(1-axis)	○Akito Araya	Must contact with the responsible person prior to the application. Operate the equipment by yourself in principle.	Any time, as needed.
2027-F3-07※ <u>Laser source equipment</u>	NEOARK Corp. Frequency stabilized He-Ne laser 1 set Emission wavelength 633nm (red light)	○Akito Araya	Must contact with the responsible person prior to the application.	Any time, as needed.
2027-F3-08 National Seismogram Data System	National Seismogram Data System 8 system	○Head of the Research Center for Monitoring Japan Arc	System to use national seismogram data, jointly operated with Japanese universities. Consult with corresponding faculty.	Any time, as needed.
2027-F3-09 Karl Fischer moisture titrator (Coulometric titration)	Kyoto Electronics Manufacturing Co., Ltd. Karl Fischer moisture titrator (Coulometric titration) < MKC-610 > 1 set https://www.kyoto-kem.com/en/product-category/karl/ Evaporator for measurement of water in rocks < ADP-512 > 1 set https://www.kyoto-kem.com/en/product-category/option-karl/	○Kenji Mibe	All users must be trained before operating the machine. It is requested that all applicants discuss their projects with contact person before submitting the proposal. The chemicals for measurements have to be purchased by users.	Any time, as needed.
2027-F3-10 Laser diffraction particle-size analyzer(wet dispersion condition)	Sympatec HELOS/KF-RODOS-QUIXEL System 1 system	○Fukashi Maeno	All users are required to receive instruction from contact persons and to adjust schedule.	Any time, as needed.
2027-F3-11※ <u>Equipment set for thermometer calibration</u>	Fluke 1586A, 9142, 7103 etc. 1 set Thermostatic bath(-30 degC to 150 degC), thermistor scanner, and so on	○Masao Nakatani	Must contact with the responsible person prior to the application. Operate the equipment by yourself in principle.	Any time, as needed
2027-F3-12 Large-scale seismic waveform data analyzing system	It is the seismic waveform analysis system which stores nationwide seismic data. Users develop and execute their own codes for analyzing the data. The minimum tools are available. 1 system	○Shigeki Nakagawa	Must contact with the responsible person prior to the application. Also, all users were requested to finish the application for the Computer system of the Research Center for Monitoring Japan Arc (2026-F3-02). Data should be used under the treatment of earthquake data of Japanese universities.	Any time, as needed

※Detailed information posted at Earthquake Research Institute, joint usage page.

【Appendix M】 FY2027 List of Specific Equipments

If you wish to use the specific equipment listed in this appendix for more than 2 months, please apply for the call for proposal for long-term use of specific equipments, which is held around February–March approximately two years before the intended year of use. Applications for use of less than 2 months are accepted at any time as needed.

(Specific Equipments)

Joint Usage Code and Name of Equipment	Information of Equipment	Contact person (○ Responsible person)	Conditions of Use and Remarks	Application periods
2027-M-01 Compact digital recorder	HKS-9700a-0505 30 sets	○Eiji Kurashimo		Any time, as needed.
2027-M-02 Seismometer(1Hz, 3-components, Lennartz electronic GmbH)	LE-3Dlite MkII 20 sets	○Eiji Kurashimo		Any time, as needed.
2027-M-03 Seismometer(1Hz, 3-components, Lennartz electronic GmbH)	LE-3Dlite MkIII 10 sets	○Eiji Kurashimo		Any time, as needed.
2027-M-04 Compact digital recorder(PELICAN)	LS-8800 52 sets	○Eiji Kurashimo		Any time, as needed.
2027-M-05 Seismometer(1Hz, 3-components, Lennartz electronic GmbH)	LE-3Dlite MkIII 59 sets	○Eiji Kurashimo		Any time, as needed.
2027-M-06 Compact digital recorder(Blue Box)	LS-8800 35 sets	○Eiji Kurashimo		Any time, as needed.
2027-M-07 Seismometers(1Hz, 3-components, Lennartz electronic GmbH)	LE-3Dlite MkII 35 sets	○Eiji Kurashimo		Any time, as needed.
2027-M-08 Seismometers(1Hz, 3-components, Lennartz electronic GmbH)	LE-3Dlite MkIII 10 sets	○Eiji Kurashimo		Any time, as needed.
2027-M-09 Single channel digital recorder	LS-8200SD 174 sets	○Eiji Kurashimo		Any time, as needed.

Joint Usage Code and Name of Equipment	Information of Equipment	Contact person (○ Responsible person)	Conditions of Use and Remarks	Application periods
2027-M-10 Seismometer(4.5Hz, UD-component)	SG820 175 sets	○Eiji Kurashimo		Any time, as needed.
2027-M-11 Geospace Seismic Recorder	GSX-3 50 sets	○Eiji Kurashimo		Any time, as needed.
2027-M-12 Seismometer(4.5Hz, 3-components)	GS-11D-3C 50 sets	○Eiji Kurashimo		Any time, as needed.
2027-M-13 Seismometer(1Hz, 3-components)	GS-1 3C SeisMonitor 2 sets	○Eiji Kurashimo		Any time, as needed.
2027-M-14 Seismometer(1Hz, 3-components, Lennartz electronic GmbH)	LE-3Dlite MkII 54 sets	○Eiji Kurashimo		Any time, as needed.
2027-M-15 Seismometer(1Hz, 3-components, Lennartz electronic GmbH)	LE-3Dlite MkIII 10 sets	○Eiji Kurashimo		Any time, as needed.
2027-M-16 Nanometrics data recording units	Centaur digital recorder 6 sets	○Eiji Kurashimo		Any time, as needed.
2027-M-17 Broad-band seismometer	Trillium-120PA 6 sets	○Eiji Kurashimo		Any time, as needed.
2027-M-18 Broad-band seismometer	Trillium-120QA 15 sets	○Eiji Kurashimo		Any time, as needed.
2027-M-19 Networked digitizer and logger (controller)	LF-1100R 9 sets	○Eiji Kurashimo		Any time, as needed.
2027-M-20 Networked digitizer and logger (digitizer)	LF-2100R 9 sets	○Eiji Kurashimo		Any time, as needed.