

Osaka Central Advanced Mathematical Institute, Osaka Metropolitan University Application Guidelines for Joint Usage/Research Project in FY2025

Since April 2019, Osaka City University Advanced Mathematical Institute has been authorized as a MEXT Center for Joint Usage/Research.

Name of Center: “Joint Usage/Research Center on Mathematics and Theoretical Physics”

**Research fields: Mathematics (algebra, geometry, and analysis) and Theoretical Physics
(mathematical physics and astrophysics)**

In April 2022, Osaka City University and Osaka Prefecture University merged to establish Osaka Metropolitan University (OMU). Accordingly, our institute changed its name to Osaka Central Advanced Mathematical Institute (OCAMI). We are pleased to announce the call for proposal of research projects in the 2025 fiscal year as a continuation of the Joint Usage/Research project. The overview and guidelines for application are as follows.

1. Purpose and Overview

Since the 21st Century COE Program, Osaka Central Advanced Mathematical Institute (OCAMI) has maintained joint research and research exchange with domestic and foreign universities and built international and domestic networks. Based on past achievements, OCAMI will further develop its activities to a new stage. We provide new international research and education by collaboration and co-creation of mathematics and theoretical physics; exchange talented researchers through the international and domestic networks; and build a world-leading research and education center in the fields of mathematics and theoretical physics with the aim of further strengthening and developing the foundation of academic research, creating new research, and fostering young international researchers. From fiscal 2022 in the new university, OMU, there will be a new structure for collaboration and co-creation among researchers in mathematics and mathematical sciences from Osaka City University and those from Osaka Prefecture University. In addition to the Mathematics Division and the Theoretical Physics Division, we have established the Division of Mathematics and Mathematical Sciences, and the Applied Mathematics Research Group. We will take a cross-sectional approach to these research groups and promote the creation of new mathematics that integrates with various fields of mathematical sciences.

2. Call for Proposals of Joint Usage/Research Projects

The present call for proposals consists of three categories in the following table, and is aimed at Joint Usage/Research corresponding to the above research fields and applied mathematics. In principle, the Joint Usage/Research projects should be carried out within the 2025 fiscal year (from April 2025 to March 2026).

(1)	Joint Usage/Research (general)	Joint Usage/Research (A)	Planned number of participants : greater than or equal to 50
		Joint Usage/Research (B)	Planned number of participants: within 50
		Joint Usage/Research (C)	Planned number of participants: within 10
(2)	International Joint Work “Mathematical Science of Symmetry, Topology and Moduli”		
(3)	Large Scale International Conference		

In the present call, there is no plan to provide financial supports with any research project unless an additional budget is allocated to OCAMI Joint Usage/Research Project.

(1) Joint Usage/Research (general)

Joint Usage/Research (A):

Planned number of participants: greater than or equal to 50

Joint Usage/Research (B):

Planned number of participants: within 50

Joint Usage/Research (C):

Planned number of participants: within 10

Terms: In principle, the Joint Usage/Research should be carried out at Osaka Metropolitan

University (Sugimoto campus, Nakamozu campus, Umeda Satellite campus, I-site Namba, etc.). Online or hybrid sessions based at Osaka Metropolitan University are also allowed. **We welcome not only research meetings but also joint research or research discussions in small groups.** If you wish to conduct the Joint Usage/Research at other locations in Japan, you need the approval of the Chair of the Center Committee.

(2) International Joint Work “Mathematical Science of Symmetry, Topology and Moduli”

Terms: Joint research to be conducted at OCAMI, at the overseas university research institutions having concluded a research cooperation agreement with OCAMI, or at the international partner institutes in the Brain Circulation Program promoted by OCAMI (see the “List of international partner institutes”). Proposals that are expected to produce research results through conducting joint research there, inviting researchers from the partner institutions, and dispatching your researchers to the organizations in the medium and long term. Proposals aiming for new expansion of overseas partner institutions are also welcome.

(3) Large Scale International Conference

Terms: Project should promote collaboration/co-creation of mathematics and theoretical physics, or more widely, mathematical sciences. In principle, the Joint Usage/Research should be conducted at Osaka Metropolitan University (Sugimoto campus, Nakamozu campus, Umeda Satellite campus, I-site Namba, etc.). Online or hybrid sessions based at Osaka Metropolitan University are also allowed. If you wish to conduct the Joint Usage/Research at other locations in Japan, you need the approval of the Chair of the Center Committee.

3. Application Method

Documents to be submitted:

- (1) Proposal for Joint Usage/Research (designated format)
- (2) References (free format: implementation program, related papers, etc.)

For the application forms and submission details, refer to:

<https://www.omu.ac.jp/orp/ocami-en/joint/application/>

4. Application Deadline

Application must be received by January 31, 2025 (Fri.) 17:00 (JST).

(If you need to delay due to unavoidable circumstances, please contact us.)

5. Selection Process

Research projects will be selected by the Project Selection Committee, and be certified by the deliberations of the Center Committee. Selection criteria:

- (1) Feasibility.
- (2) International level research can be expected.
- (3) Supporting development of young researchers.
- (4) Participation of female researchers in the project.
- (5) Promoting collaboration/co-creation of mathematics and theoretical physics, or more widely, mathematical sciences.

6. Adoption or Rejection

The proposer will be informed of the result by late March 2025.

7. Procedures after Adoption

- (1) After adoption, the secretary of the Center will contact you regarding procedures such as submission of the implementation plan.
- (2) After the end of the Joint Usage/Research project, submit the report, participant list, and information on research outputs (such as papers) to the secretary of the Center. The method of submission will be communicated by the secretary of the Center.
- (3) For papers presented and conferences conducted using the Joint Usage/Research project, refer to the sample text at the following URL and include a corresponding note in the acknowledgments or similar sections:
<https://www.omu.ac.jp/orp/ocami-en/joint/publication-data/>

8. Others

- (1) Before submitting a proposal, the proposer should establish contact with at least one OMU researchers (see the “List of OMU researchers”) and write their names in the proposal. If not, the application will be rejected in principle.
- (2) The information on the adopted research projects, such as project names, abstracts, research plans, and research results will be disclosed on the website and official SNS accounts (such as X) of OCAMI.

- (3) It is recommended to publish a collection of lecture abstracts and slides as OCAMI Reports. The published OCAMI Reports will be registered in our university's institutional repository and will be assigned a DOI.
- (4) By approval of the Chair of the Center Committee, the proposer can hold a jointly hosted conference with another research institute/group.
- (5) This Center is currently working to develop the equipment and supporting systems required for online streaming. It is recommended that research meetings and seminars to be held as the Joint Usage/Research be held in a hybrid format combining on-site and online delivery.
- (6) The official YouTube channel of OCAMI has been established. As part of the dissemination of research results, we encourage you to upload videos of your research activities to the YouTube channel. In particular, uploading introductory lectures for graduate students and overview lectures for non-specialists is recommended because it serves our purpose of fostering young researchers and creating cross-disciplinary mathematics. If you are interested in submitting a video, please contact an OMU researcher.

URL of OCAMI YouTube channel:

https://www.youtube.com/channel/UCwLFFDLAzpevNUmGP3bu8_w/featured

9. Contact

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