March 24, 2022 Revised March 28, 2024

These Jxiv Submission Service Terms ("Submission Terms") set forth the terms and conditions under which a Submitter (one of the authors) may use the services of Jxiv, the Preprint server operated by the Japan Science and Technology Agency ("JST"), and constitute an agreement between JST and the Submitter for the use of JST's service. The guidelines and other provisions separately stipulated regarding submission and distribution are part of the Submission Terms by reference and are binding to the Submitter. Submitters shall use JST's service in accordance with the Submission Terms.

If the requirements set forth in the Submission Terms are not satisfied, the Submitter cannot use the submission and distributing services provided by Jxiv.

The Jxiv Browsing Terms shall apply to the use of Preprint and/or Preprint Data (defined in Section 1 below) available on Jxiv.

The Submission Terms may be changed at JST's sole discretion.

## 1. Purpose of Jxiv

Jxiv is a preprint server operated by JST which can be used to make available to the public preprints of research papers and their related Data in Japanese or English that are submitted by researchers. Jxiv shall be operated to enhance public discussion at an early stage of the research process, to promote research and development by enabling the rapid distribution and sharing of research results, and to incentivize authors to distribute their research there (including by giving authors an opportunity to establish precedence).

The Submitter shall submit their Preprint and any related data ("Preprint" shall mean a draft work, such as a paper, and "Preprint Data" shall mean the digital files that are publicly available online including the original manuscript and its associated data) and use the service for making Preprint Data available to the public on Jxiv ("the Submission Service") in accordance with the Submission Terms.

#### 2. Submitter requirements

In order to use the Submission Service, the Submitter shall satisfy the following

requirements, otherwise the Submitter may not use the Submission Service and JST will not make the Preprint Data available to the public.

- (1) The Submitter shall have an account for the Submission Service.

  In order to obtain an account for the Submission Service, the Submitter must have a researchmap account or an ORCID account.
- (2) The Submitter has never been banned or suspended from using the Submission Service or had their account for the Submission Service banned or suspended by JST. (The foregoing does not apply when JST specifically approves.)
- (3) The Submitter has agreed to the provisions in the Submission Terms and Jxiv Privacy Policy related to the handling of personal information.
- (4) The Submitter shall notify and present true and correct information to JST in using the Submission Service.
- (5) The Submitter shall use present name or common name continuously used as author name for Preprint to be submitted.
- (6) The Submitter shall have the right and authority to submit the Preprint to the Submission Service in accordance with the Submission Terms. The foregoing shall include the requirements stated below:
  - a. The Submitter shall be an author of the Preprint.
  - b. If the Preprint are co-authored, the Submitter has obtained consent to use the Submission Service from all other co-authors (including consent to the provisions related to the handling of personal information and the privacy policy, etc., described in item (3) above.)

# 3. Requirements of Preprint and Preprint Data

Preprint and Preprint Data shall satisfy the following requirements; otherwise, the Submitter may not use the Submission Service, and JST will not make the Preprint available to the public.

- (1) Requirements for the research described in the Preprint
  - a. Research embodied in the Preprint shall satisfy the requirements stated below and shall be expressly disclosed in the Preprint.
    - (a) The research has been carried out in accordance with ethical requirements and has been approved by the related research ethics committee, if necessary.
    - (b) The necessary informed consent has been obtained from research participants or research subjects.
    - (c) The research has been carried out in accordance with appropriate practices that are accepted as standards in the field of study.
  - b. The data, programs, and other contents underlying the research shall be available for reference.
  - c. The Preprint shall be a research paper based on scientific methods and

logic.

- d. In case of submission of original research papers, the Preprint shall describe novel research.
- (2) Requirements of the content of the Preprint
  - a. Preprint shall be the manuscript before being submitted to journals, etc., or if already submitted to journals, shall be not modified yet as result of peer review process (e.g., original research papers, review papers, overview papers. Lecture notes formatted in a form of papers can be included). (However, the foregoing does not apply if the Submitter obtains the permission of the journal that provided the peer review comment, at one's own responsibility).
  - b. The submission must be an original work.
  - c. The academic or technical position shall be clearly demonstrated based on existing research, and the logic is rationally developed.
  - d. Preprint shall not be created by generative artificial intelligence (AI) or any AI-assisted tools other than natural persons. If this is done, relevant information, including methods for use must be clearly disclosed in the Preprint.
  - e. Authors shall be solely responsible for all work performed by generative AI and AI-assisted tools, including content and resource.
  - f. Conflicts of interest shall be disclosed regarding all of the authors.
  - g. Preprint shall not be translation of any papers that have already been made publicly available on preprint servers including Jxiv or by publishers such as journals (hereinafter referred to as "Original Work"). However, certain exceptions are permitted as described below.
- (3) Requirements for Translated Work
  - Translations of Original Work ("Translated Work") can be accepted to the Submission Service if it is in Japanese or English and satisfies the following requirements.
  - a. The Translated Work shall be prepared by the author of the Original Work (when the Original Work is co-authored, all authors of the translated paper shall be exactly the same as those of the original paper.)
  - b. If the Original Work has been published by a publisher such as a journal, the author must obtain permission from the publisher of the Original Work or other equivalent copyright holder to submit the Translated Work and make it publicly available on Jxiv. If the Original Work is a preprint, permission to make the Translated Work available to the public on another preprint server shall be obtained from the preprint server where the Original Work is published. The permission required to submit translated work to Jxiv must be complied with the Guidelines in effect at

- the time of submission.
- c. The Translated Work shall be faithful to the Original Work.
- d. The Preprint shall clearly indicate that it is a Translated work on the title page to make it easily recognized as translation of the Original work, and the bibliographic information of the Original Work shall be clearly specified on the title page of the Translated Work.
- (4) Requirements for authorization of submission
  - a. The Preprint (including the substantially identical preprint) has not already been submitted to or made publicly available on a preprint server including Jxiv.
  - b. The Preprint (including the substantially identical preprint) has not been submitted to a journal, etc., or has not been published or made available to the public. However, the foregoing is not applicable if the journal has given permission in advance for submission to preprint servers, or if the journal to which the Preprint was submitted allows submission to the Submission Service (including the case where the submission is rejected by the journal).
  - c. In case of submission of lecture notes, the Submitter by their own responsibility has obtained all necessary permissions from all copyright holders for the reproduction and public transmission.
- (5) Requirements for legality and appropriateness of the Preprint
  - a. There is no misconduct, including fabrication, manipulation or plagiarism, in the Preprint.
  - b. None of the following applies to the Preprint:
    - (a) Infringes or threatens to infringe on the copyrights, moral rights, honor rights, privacy rights, the rights on likeness, the right of publicity, trade secrets or other rights or interests of JST or any third party;
    - (b) Is against or threatens to be against laws and regulations and/or public policy, or unreasonably incites social unrest;
    - (c) Constitutes or threatens to constitute a crime of fraud, blackmail, damage of credit, defamation, violation of the Public Offices Election Act, or other laws or regulations;
    - (d) Contains excessive sexual expression, cruel expression, crimeinducing or discriminatory language;
    - (e) Is primarily intended to gain support for a specific political party or for any other organizations or for other activities related to such party or organizations;
    - (f) Is primarily intended to solicit to a particular religion or other activities related to the religion;
    - (g) Is intended for advertising or promotional purposes;

- (h) Constitutes or threatens to constitute violation of the Foreign Exchange and Foreign Trade Act or other laws or regulations if the Preprint Data is made available to the public; or
- (i) Is likely to significantly impair the reliability of JST or the Submission Service if the Preprint is made available to the public.
- c. There are no other ethical issues with the Preprint.

## (6) Requirements for file format

The Preprint shall be prepared in a single PDF file that includes all items as needed, such as the title, names of authors, affiliations, contact information of corresponding author, keywords, abstract (summary), text, acknowledgments, citation information, figures, tables, etc. Supplemental data can be attached to the Preprint; however, the Preprint, including the supplemental data, shall be prepared following the Jxiv Guidelines that shall be effective at the time of submission and that describe the file formats available for submission, and the maximum limit of file sizes, etc.

## 4. About Screening (Moderation)

JST reserves the right, but is not obligated, to conduct moderation to the extent necessary at JST's discretion to ensure that the Submitter and the Preprint meet the requirements set forth in the Submission Terms. If, as result of the screening process, JST determines that the requirements described in the Submission Terms are not met for the Preprint submitted, JST will not make the Preprint available to the public. JST will conduct screening, including searching researchmap or ORCID to verify the identity of the author; using iThenticate, a similarity verification tool provided by Turnitin, LLC, to verify the originality of the Preprint; and using other services provided by third parties. The Submitter agrees that the Preprint or bibliographic information are subject to use by such services provided by third parties.

The Submitter acknowledges in advance and agrees that (1) the Preprint will not be made available to the public until JST completes such screening, and (2) JST will make reasonable efforts, including from a cost perspective to expedite such screening, but cannot guarantee the date on which the Preprint will be made available to the public, and that JST will not be liable in this regard.

## 5. Making preprint available to the public

The Submitter agrees that the Preprint will be made available to the public in accordance with the following conditions if the Submitter, Preprint and Preprint Data meet the requirements set forth in the Submission Terms:

(1) Not edited or modified

Preprint will be made available to the public without being modified or

edited by JST. The file uploaded by the Submitter will be made publicly available as is.

#### (2) Creative Commons License

The Submitter shall select an appropriate Creative Commons License and grant the right for secondary use accordingly. The Submitter shall be aware that once granted, a Creative Commons License cannot be changed or vacated due to the provisions of Creative Commons Licenses.

## (3) Terms of being available to the public

The Submitter shall grant JST a license for the use of Preprint and Preprint Data that is necessary for the Preprint and Preprint Data to be made available to the public.

- Preprint and bibliographic information related to the Preprint can be freely viewed and downloaded by an unspecified number of people via the Internet.
- b. Preprint and bibliographic information related to the Preprint, including personal information such as author names and affiliations, will be provided by JST to third parties with whom JST has a related agreement (including those located outside Japan) ("External Partners") and may be used by them in any manner. (The details about External Partners shall be set forth in Section 7).
- c. A DOI shall be assigned to the Preprint by Japan Link Center. Related information about Japan Link Center is provided separately (see Exhibit).
- d. The Preprint shall continue to be available to the public semipermanently as a pre-peer-reviewed manuscript on Jxiv after it is accepted and published in a journal as a research paper.
- e. If the Preprint is published by a journal, a link to the journal-published version should be added to the Preprint landing page. (Note that no other changes may be made to the bibliographic information linked to the preprint at this time.)

# 6. Copyright of the Preprint

The copyright and other rights of the Preprint shall belong to the author(s) (or to any person or entity who has obtained the copyright by agreement with the author(s). The foregoing shall apply thereafter.). By using the Submission Service, the Submitter, on behalf of all the authors, grants JST a non-exclusive license to use the Preprint and Preprint Data in accordance with these Submission Terms. The author has a right to use the Preprint freely at their discretion, including submitting to and publishing the Preprint in a journal, but cannot perform any action that restricts the license granted to JST. The bibliographic information affixed at the time the Preprint is made available to

the public on Jxiv indicates that the author shall be the copyright holder, and this information, once affixed, cannot be changed or erased thereafter.

JST undertakes no obligation to protect the copyright of the Preprint Data. JST is not responsible for responding to requests or inquiries regarding licenses or copyright of the Preprint Data from third parties.

# 7. External Partners

For the purpose of promoting the sharing and hosting of research results, JST may, at its sole discretion, cooperate with identifier-assigning organizations for science and technology publications in Japan and abroad, collaborate with location search services and data analysis services (including verification services used to determine the similarities of the Preprint to previously published work), perform cooperation for other investigations, analysis and research, and may provide the Preprint, bibliographic information and the Preprint Data related thereto to External Partners (regardless of whether for profit or non-profit, or paid or unpaid services), including Japan Link Center. In other words, the Preprint and Preprint Data submitted using the Submission Service shall be provided within or outside Japan for use necessary by External Partners, including data crawling, reproduction, indexing, database accumulation, analysis and publishing analysis results, distribution, or any other manner (including reproduction, transmission, publication on a website, or being used by a third party who obtains the Preprint Data from an External Partner). The Submitter, on behalf of all authors, shall grant JST the license without charge required for JST to provide such rights to External Partners to use the Preprint and Preprint Data, which includes the right to permit the Preprint and Preprint Data to be screened by verification services to determine its similarity to previously published papers. For clarity, JST has the right to permit External Partners to link to the Preprint Data on Jxiv, to show snippets by extracting from the Preprint (where the text Data is presented, and their amount may vary among External Partners), and to provide the Preprint to customers or users of External Partners. The Submitter may not raise objections to such use nor allow the authors to do so.

## 8. The Submission Terms prevailing and warranties

## (1) The Submission Terms prevailing

Even if any certain license or any restriction of use applies to Preprint and its bibliographic information, the Submitter acknowledges and agrees that the Submission Terms shall control and prevail over such license or restrictions related to the use of Preprint and its bibliographic information, and that such use shall be subject to the Submission Terms. For the use of the Submission Service, the Submitter shall obtain in advance consent from the author(s) of the Preprint for the use of Preprint and its bibliographic information in accordance with the Submission Terms.

#### (2) Warranties

The Submitter represents and warrants that JST's use of the Preprint and the corresponding bibliographic information, and its grant to External Partners to use them in accordance with the Submission Terms, do not infringe on the copyrights, moral rights of authors, neighboring rights, trade secrets, or any other rights or interests of third parties, including the author or copyright holder, and that the Submitter has the legitimate right and authority to grant JST a license to use the Preprint, the associated bibliographic information, and the Preprint Data in accordance with the Submission Terms. The Submitter shall resolve and settle, on their own responsibility and at their own costs, any objections or claims raised against JST or External Partners by any third party, including an author of the Preprint.

#### 9. Contact

In case JST requires investigation or other confirmation of the Preprint for any reason, the Submitter shall notify JST of its contact information. JST will usually contact the Submitter who owns the account with which the Preprint was submitted; however, JST may contact a corresponding author or other co-author, in cases where the Submitter is different from the corresponding author. In cases when contact from JST is impossible due to any issues with the contact information provided by the Submitter, JST may make any necessary decisions based on the fact that JST was unable to contact the Submitter.

# 10. Unsubmission, Withdrawal, Revision, or Suspension or public availability

#### (1) Unsubmission

The Submitter can unsubmit the Preprint before it is made available to the public through the Submission Service.

# (2) Revision

The Submitter may submit a revised version of the Preprint or change the bibliographic information before it is accepted by a journal even after it is made available to the public on Jxiv. Sections 2 through 4 of the Submission Terms shall apply to the revised version or any change to the bibliographic information. In the case of submission of a revised version of the already submitted preprint, the newly submitted version shall be linked to the original version, and vice versa; the original version remains publicly available without being deleted; and the bibliographic information will be

updated with the reason for and date of submission of the revised version or modification or change to the bibliographic information.

Preprint cannot be revised based on peer review results or anything like the peer review process from journals. In addition, it is not acceptable to submit the work as a revised version of an already submitted preprint that has been accepted or published in a journal or has been made available to the public on another preprint server. However, the foregoing does not apply if the Submitter, at its own responsibility, has obtained permission from the journal to submit a revised version that reflects the peer review results, or to submit a revised version to the Submission Service that has already been accepted or published.

The Submitter may not delete or make the Preprint and Preprint Data unavailable to the public once it becomes publicly available.

#### (3) Withdrawal

JST may withdraw the Preprint if JST determines that the Submitter and/or the Preprint and Preprint Data do not satisfy the requirements described in the Submission Terms even after the Preprint is made available to the public. Whether or not to withdraw is determined at JST's sole discretion. In the case of withdrawal, the Preprint will be modified to indicate the reason for the withdrawal, and it will remain available to the public with a notification of withdrawal being displayed on the title page.

## (4) Suspension of public availability

JST may withdraw the Preprint and suspend its public availability if JST determines, at its sole discretion, that the Submitter and/or the Preprint and Preprint Data do not satisfy the requirements described in the Submission Terms and that making the Preprint available to the public is inappropriate. Additionally, if a court or other public institution issues a court order or other order to suspend public availability of a specific preprint, JST may suspend the public availability or take any other necessary measures regarding the Preprint in question.

In the event that a Preprint is withdrawn or its public availability suspended according to item (3) or (4) above, except if prohibited by laws and regulations, the Submission Service will announce that the relevant Preprint has been withdrawn or public availability is suspended. All corresponding bibliographic information will remain available to the public, clearly stating the date and reasons for withdrawing or making it unavailable to the public.

Jxiv Submission Guidelines describe the details of the procedure for unsubmission, revision, withdrawal, or suspension of public availability. The Guidelines should be

followed when taking the action.

# 11. No involvement in Organized Crime Activities

# 1) Not being an Organized Crime Group

The Submitter warrants that none of the authors is nor will be an organized crime group, organized crime group member or associate member, a company related thereto, or other organization or body that is likely to be engaged in violent or illegal activity or pose a threat to the safety of civil life enhance illegal acts collectively or habitually, or a member of them ("OCG").

# 2) Not related to OCG

The Submitter warrants that none of the authors have nor will have any substantial relationship with OCG, including being controlled by OCG, or providing any benefit to OCG.

## 12. Restrictions on the use of the Submission Service

# (1) No obligation of JST to investigate

The Submission Service makes public the Preprint and Preprint Data "as is" submitted by the Submitter, for the purpose described in Section 1 of the Submission Terms. JST does not assume any obligation or responsibility for any investigation, correction or other conduct regarding the logic, scientificity, accuracy, or validity of the Preprint, as well as the accuracy, completeness, security (including not containing any malicious codes) of the Preprint Data.

# (2) Provision of the Submission Service

The Submission Service is provided as is, and JST does not make any warranty that the Submission Service is made available without error or interruption or for an indefinite period, and JST is not liable for any suspension, interruption or discontinuation of the Submission Service.

(3) Suspension or termination of the Submission Service

JST may, at JST's sole discretion, suspend or terminate the operation of all

or part of the Submission Service in the event of maintenance, repairment,

or any other works that JST considers necessary.

### (4) Change or termination of the Submission Service

JST reserves the right to change the content of this Submission Service or terminate it if it is necessary for the operational or other unavoidable reasons. In this case, JST shall, to the extent reasonably possible, endeavor to notify the Submitter of the change or termination of the Submission Service.

#### 13. Prohibited actions

When using the Submission Service, the Submitter may not:

- (1) Use the Submission Service or browse the content on Jxiv in breach of the Submission Terms (including their related guidelines) or the Jxiv Browsing Terms;
- (2) Use the Submission Terms in a manner not fitting the purpose of Jxiv, as stated in Section 1 of the Submission Terms;
- (3) Behave or attempt to behave in any way that violates laws and regulations, or public policy;
- (4) Perform or attempt to perform reverse engineering, disassembling, decompiling or extracting source code related to the Submission Services or programs;
- (5) Gain or attempt to gain unauthorized access, or place an excess load on the Submission Service through intensive access, or attack the system or security of the Submission Service using computer viruses or any other harmful programs (including acts that induce such attacks), or interfere or attempt to interfere with the normal operation and management of the Submission Service.
- (6) Download or attempt to download large amounts of data using mechanical or similar means;
- (7) Otherwise, impair or cause disruption to the Submission Service or any operation of JST; or
- (8) Perform any other actions equivalent to any of the above items that JST reasonably deems inappropriate.

# 14. Suspension or termination of use of the Submission Service

In cases of a breach of the Submission Terms or the Jxiv Browsing Terms by the Submitter, JST has the right to suspend or terminate the Submitter's use of the Submission Service, suspend or ban the Submitter's account on Jxiv, or take any other measures that JST considers necessary.

# 15. Liability of each party in the Submission Service

Regarding the Submission Service, while JST's liability is limited as follows, Submitters and/or the authors may be responsible for their Preprint and Preprint Data, and the Submitter agrees to such restrictions and liability.

- (1) Limitation of JST's Liability
  - a. The Submitter is solely responsible for the content of the Preprint and

Preprint Data and/or for any damages (regardless of direct or indirect) arising therefrom, and JST shall bear no responsibility in any manner for the content of Preprint and Preprint Data and/or damages arising therefrom.

- b. The Submission Service is provided on an "as-is" basis, and JST does not make any guarantee regarding the continuity, availability and usefulness of such service, and shall bear no responsibility in any manner for its interruption or suspension, or any loss or destruction of data.
- c. The Submitter shall use the Submission Service at their own risk and responsibility, and JST is not liable against the Submitter for any acts of JST (including its External Partners) according to the Submission Terms, including making the Preprint available to the public by the Submitter's use of the Submission Service, not making the Preprint available to the public through JST's decision, JST's suspending or terminating the Submitter's use of the Submission Services or suspending or banning the Submitter's account for the Submission Service through JST's decision, except in case where JST's willful conduct or gross negligence is involved.

# (2) Submitter's Responsibility

The Submitter is fully responsible for the content of the Preprint and Preprint Data and shall defend, indemnify and hold JST non-accountable for any claim made against JST with respect to the Preprint and Preprint Data. The foregoing shall apply to the case where the Submitter causes damages against JST by violating the Submission Terms or the Jxiv Browsing Terms.

#### 16. Amendments to the Submission Terms

JST may revise all or part of the Submission Terms if JST deems it reasonably necessary. In cases where the Submission Terms are amended, information about the amendment together with the effective date shall be made known on the Service or in any other manner that JST deems appropriate.

The amended Submission Terms shall apply to the Preprint and Preprint Data submitted on or after the amendments become effective.

## 17. Governing law and jurisdiction

The Submission Terms shall be governed by the laws of Japan, and the Tokyo District Court shall have an exclusive jurisdiction over any dispute between the Submitter and JST relating to the Service, in the first instance.

# 18. Language

If there are any discrepancies between the Japanese text of the Submission Terms and the text of any translation of the Submission Terms, the Japanese text shall prevail.

# (Supplemental Provisions)

The Submission Terms firstly come into force on March 24, 2022.

# (Supplemental Provisions)

The revised Submission Terms come into force on March 28, 2024.

#### Exhibit

Terms and Conditions for Japan Link Center

## < Japan Link Center >

Japan Link Center ("JaLC") is a digital object identifier (DOI) registration organization for academic content in Japan, jointly operated by JST, the National Institute of Informatics, the National Diet Library, and the National Institute for Materials Science.

#### < Associate Members>

JaLC's membership categories include "regular members", who can register a DOI directly with JaLC, and "associate members", who can register a DOI with JaLC through a regular member.

<Granting License to JaLC for the bibliographic information of the Preprint to
which a DOI is assigned >

The Submitter grants JST the following right to use the bibliographic information related to the Preprint for which a DOI is assigned without any charge. The licensed territory shall always be worldwide.

In addition, with regard to these uses, the Submitter may not exercise the moral rights for oneself and warrants that the authors will not do so against JST and its designated third parties.

The license stipulated in this Exhibit cannot be withdrawn or revoked. Even if the license in the main body of the Submission Terms expires or terminates, the license specified in this Exhibit shall survive and remain effective.

# (1) Bibliographic information

JST can provide to JaLC any bibliographic information, abstract or citation information regarding the Preprint for which a DOI is assigned, and JaLC has a right to use them (including in any manner of reproduction, translation, modification, editing, automatic public transmission, and distribution). They can use the original form or the form of any derivative work, regardless of whether for profit or non-profit purpose, whether in electronic form or others, and any Data formats. The foregoing applies in this Exhibit. JaLC has a right to grant a license to whomever to use such bibliographic information, abstract or citation information.

JaLC's license includes the right of granting a license to a third party to use in the same way, and such sublicensed third party may also have the right to grant a license. The foregoing shall apply in the same way to the third party who is granted a license thereafter.

Considering the licensed territory is worldwide, the information in the bibliographic information, including author names, will be provided outside Japan.

(2) Personal information contained in bibliographic information
Personal information about authors in bibliographic information is provided to
JaLC and then to third parties, including JaLC regular members and users of
service providers with which JaLC cooperates, including those located outside
Japan. Please refer to JaLC's Privacy Policy to learn more about JaLC's use of this
personal information.