Rubin LSST Active Galactic Nuclei Science Collaboration

Publication Policy

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1. Purpose

This document outlines the Publication Policy of the Rubin Observatory Legacy Survey of Space and Time (LSST) Active Galactic Nuclei Science Collaboration (AGN SC), which applies to all work produced by AGN SC members on topics developed within its research environment.

There are four primary goals for this policy:

- 1. Maximize quality and validity of publications. Ensure that all publications meet rigorous standards of scientific integrity and validity, leveraging the expertise of AGN SC members to enhance the quality of research outputs.
- 2. Protect intellectual property and foster a supportive environment. Create an environment where AGN SC members feel secure in sharing their ideas and expertise, safeguarding their intellectual property rights and promoting collaborative innovation.
- 3. Recognize contributions of individuals and junior members. Acknowledge and celebrate the diverse contributions of all members, with a particular emphasis on recognizing the efforts of junior members in analysis leadership and collaborative endeavors.
- 4. Reduce time for publication acceptance. Streamline the review process to expedite the acceptance of papers for publication, ensuring timely dissemination of research findings while maintaining high standards of quality and validity.

This policy aims to balance the varied priorities and expectations of AGN SC members and communities. Successful implementation hinges on all collaborators recognizing the need for compromise to leverage the strength of diverse expertise and experiences within the collaboration.

2. AGN SC Publication Panel

Established by the AGN SC Charter, the AGN SC Publication Panel is responsible for overseeing publication activities within the collaboration and is the authorizing

agent for this Publication Policy. The Publication Panel ensures that all publications align with the goals and objectives outlined in Section 1. Purpose of this Publication Policy.

The key responsibilities and functions of the Publication Panel include:

- 1. **Developing and Overseeing the Review Process.** The Publication Panel develops a detailed implementation of the review process as described in subsequent sections of this policy. It also oversees this process to ensure it is conducted effectively and efficiently, maintaining high standards of quality and validity.
- 2. Authorship Oversight and Dispute Resolution. The Publication Panel oversees authorship guidelines, ensuring fair recognition of contributions, especially those of junior members. It also resolves disputes over publication content, procedure, and authorship, ensuring equitable resolutions in line with the collaboration's principles.
- 3. Maintaining the Project Database. The Publication Panel is responsible for maintaining a comprehensive database that tracks the progress and outcomes of projects associated with the AGN SC (see Section 4.1. Project Definition and Scope). This involves verifying the accuracy of project information, ensuring the platform is consistently operational, and addressing any technical issues to ensure uninterrupted access for project members.
- 4. Recommending Policy Amendments. The Publication Panel may propose amendments to this Publication Policy and submit these recommendations to the AGN SC. Proposed amendments will undergo a mandatory one-month collaboration-wide comment period, during which all members may review and provide feedback. Following this period, the proposed amendments will be subject to adoption through a two-thirds majority vote of all Full and Core Members. Additionally, the Publication Panel will track all changes made to the document, ensuring that a clear record of revisions is maintained for transparency and historical reference.

Collaboration members are encouraged to reach out to the Publication Panel with inquiries or concerns regarding publication activities. Additionally, any collaboration member may suggest changes to the Publication Policy for consideration by the Publication Panel. However, formal proposals for amendments to the policy are initiated by the Publication Panel.

3. Publications Covered by this Policy

A publication is considered an AGN SC Publication, and thus subject to this policy, if it satisfies both of the following criteria:

- 1. The publication uses AGN SC resources or non-public products, or is a result of active collaborative work within the AGN SC.
 - a) AGN SC resources include, but are not limited to: computing, storage, communication tools (e.g., Slack, Zoom, OpenProject), in-kind contributions where the AGN SC is the primary recipient group, and other services provided or facilitated by the AGN SC to enable collaboration.
 - b) AGN SC products include, but are not limited to: datasets, analysis methods, simulations, software, publications, presentation materials, and other deliverables developed within or for the AGN SC or using AGN SC resources.
- 2. The publication is authored by one or more AGN SC members.

Publications that do not meet both of the above criteria are considered "external publications" and fall outside the scope of this policy. In addition, the AGN SC Publication Policy aligns with the LSST Project Publication Policy (LPM-162), such that parties external to the AGN SC who wish to use its intellectual property must adhere to these principles. This ensures support for the goals of the collaboration and fosters genuine, friendly international cooperation. In cases of ambiguity, the AGN SC Publication Panel will determine whether a publication qualifies as an AGN SC Publication.

4. Project Management

To ensure effective coordination and cooperation, the AGN SC will use a structured system of projects to manage research and development efforts. This process is essential for initiating any activity that may lead to a publication, whether a

scientific investigation or the development of infrastructure such as software tools or datasets. By formalizing projects, the AGN SC fosters transparency, collaboration, and efficient resource utilization, while also encouraging contributions from all members throughout the development process.

4.1. Project Definition and Scope

An AGN SC Project is a scientific investigation or infrastructure development effort undertaken within and formally recognized by the AGN SC. Members are expected to propose projects at the beginning of the research process. The intent is not for members to initiate a project and quickly submit a finished paper, but rather to engage in a collaborative effort throughout the project's development. This approach ensures that sufficient time is provided for feedback and contributions from other members, aligning with the spirit of collaboration and shared scientific progress.

4.2. Project Proposal Process

- 1. **Proposal.** To initiate a Project, members must submit a detailed project proposal through the AGN SC Project Proposal Form. The proposal should outline the project's objectives, expected deliverables, anticipated timeline, and all initial project collaborators, including any external collaborators. For AGN SC collaborators, please specify their roles within the project. Projects that constitute a graduate student thesis must be identified as such at the time of the project submission.
- 2. **Project Review.** The Publication Panel will assess the submitted project proposal for compliance with ethical standards and policy guidelines, ensuring alignment with the collaboration's mission and objectives. Projects meeting these criteria will be approved to proceed.
- 3. **Announcement.** Once approved, the Publication Panel will announce the start of the Project to the entire collaboration. This announcement ensures transparency and provides an opportunity for other members with relevant expertise or interest to join and contribute to the project. Additionally, a brief presentation should be scheduled at the next relevant meeting—general

or subgroup—to introduce the Project, outline its goals, and invite further collaboration.

4.3. Project Database

All Projects will be recorded in the AGN SC Project Database, a searchable database accessible to all members, facilitating visibility into ongoing work and inviting potential collaborators to join. Collaboration members are responsible for checking the Project Database for similarities before submitting new project proposals, ensuring efficient use of resources and avoiding unnecessary duplication of efforts.

Project leads are responsible for maintaining up-to-date information on their Projects, ensuring that all relevant materials are uploaded to the Project Database, and keeping all Project collaborators informed of its progress. The material in this repository should contain sufficient information for collaborators to reproduce the work, along with relevant comments from collaborators, the current draft of the paper, referee reports and responses, and the publication status. All such materials will be shared with the collaboration via the associated Project posting, ensuring transparency and encouraging collaborative input.

4.4. Collaboration and Openness

To foster collaboration, the AGN SC encourages members to share ideas and seek collaborators for their projects. Projects can also be proposed with the intent of finding collaborators within the collaboration.

Competing projects and publications are allowed, as they can drive innovation and contribute to scientific progress. However, all members should strive to minimize unnecessary friction and ensure constructive interactions. Project declarations cannot be used to cordon off or reserve a scientific area solely for a specific group. The goal is to promote an open and collaborative environment where diverse approaches and perspectives are valued.

5. Types of AGN SC Publications

AGN SC Publications encompass a diverse array of contributions, each serving distinct purposes within both our collaboration and the broader scientific community. This policy does not cover proposals for grant funding or telescope observing.

Press releases or other dissemination of results to the general public, including via social media, are the responsibility of the LSST Communications Manager under the purview of the LSST Media Interaction Policy (LPM-112) and are thus not overseen by the AGN SC Publication Policy.

5.1. Papers

AGN SC Papers are publications based on AGN SC data products or intellectual property. These papers are typically written within one or more AGN SC subgroups and undergo a review and endorsement process within the collaboration. AGN SC Papers include those that are based primarily on AGN SC data products (e.g., data, simulations, or methods developed within the AGN SC), papers documenting a specific AGN SC data release, and papers detailing specific methods and algorithms created for the AGN SC. There are two types of AGN SC Papers:

- **Key Papers.** AGN SC Key Papers describe core data releases, scientific analyses, and foundational documents identified as central goals of the AGN SC, including white papers that represent the broad consensus of the collaboration. These papers serve as authoritative and comprehensive documents and are designated as such through consultation among the AGN SC cochairs, Publication Panel, and subgroup coordinators.
- Standard Papers. AGN SC Standard Papers encompass various scientific analyses and methodological developments that are not central goals of the collaboration. While Standard Papers should not simply replicate the analyses of Key Papers, they may build upon, extend, or offer new insights or corrections to these analyses, provided they offer a distinct contribution to the research. Standard Papers building upon Key Papers should not precede them in publication unless explicitly approved by the Publication Panel and properly cited.

Authors are encouraged to archive related documentation in the AGN SC Project Database, including detailed descriptions, simulation data and software locations, and communication records. This archival process serves as an institutional memory, aiding future AGN SC endeavors.

Documentation supporting each AGN SC Paper shall be made available to members of the AGN SC who are offered coauthorship and to the Publication Panel in case of disputes regarding coauthorship or publication review. Authors are required to provide ample documentation to enable efficient review of the analysis, including any steps not explicitly detailed in the paper.

5.2. Conference Contributions

AGN SC Conference Contributions encompass all materials (e.g., figures, tables, results) presented during external (i.e., non-AGN SC meetings) conference presentations (e.g., posters, talks, proceedings) and scientific talks (e.g., seminars, colloquia) developed within the AGN SC. Should the conference proceeding include a paper or manuscript, it must follow the process outlined above in Section 5.1. Papers to ensure proper review and adherence to AGN SC standards.

5.3. Data Releases

AGN SC Data Releases comprise materials generated within the AGN SC and shared with the wider community in machine-readable format upon submission of the corresponding data release paper, no later than its publication. These encompass processed or reprocessed data, data by-products, results of numerical simulations, and their accompanying documentation.

5.4. Software Tools

AGN SC Software Tools refer to code and software developed within the collaboration to support scientific analysis, simulations, or other research activities. While a corresponding software paper may not always accompany the release of software tools, proper documentation (see Section 5.5. Notes) should be provided to ensure accessibility and usability by the broader community. Proper attribution to the developers of the software is required in any publications that utilize these tools.

5.5. Notes

A Project or piece of work whose outcome does not fall into one of the previous categories should be documented in an AGN SC Note. Notes serve as comprehensive documentation detailing the procedures and methodologies used in AGN SC investigations, data releases, software development, or other relevant activities, and are crucial for ensuring the reproducibility of research within the collaboration, allowing authors and others to replicate procedures and obtain consistent results. Additionally, AGN SC Notes justify key analytical choices, facilitate collaboration among researchers, and enable verification and expansion of each other's work.

AGN SC Notes may take various forms, including formal documents, software documentation, wiki pages, and documentation produced with emerging tools. AGN SC Notes may be posted to a public website (e.g., arXiv) following the same criteria for publication as AGN SC Papers.

5.6. Theses

PhD theses are not subject to the AGN SC Publication Policy. However, any associated manuscripts or conference proceedings must undergo the usual review process described in Section 5.1. Papers and adhere to the guidelines set forth by the policy.

6. Authorship

The authorship and citation policy for the AGN SC adheres to the professional and ethical standards outlined by respected organizations such as the American Astronomical Society (AAS) and the American Physical Society (APS). The concept of "significant contribution" is central to this policy, indicating contributions essential to the inception, design, execution, or interpretation of the reported work. This encompasses the development of methods within the AGN SC that later inform Project implementations and are publicly released.

6.1. Eligibility and Rights

The AGN SC Charter delineates membership tiers into three categories: Associate, Full, and Core. These definitions establish coauthorship eligibility and rights, as well as participation in the internal review process for publications, with certain tiers having automatic rights to coauthorship on specific publications:

- Associate. Associate Members are eligible to coauthor any Publication associated with a Project they are part of, provided they have made significant contributions.
- Full. Full Members are eligible to coauthor any Publication to which they have made significant contributions.
- Core. Core Members have the right to coauthor all Key Papers. To exercise this right, they must thoroughly review the entire manuscript and fulfill the role of internal reviewer by providing constructive feedback. The lead author is responsible for documenting this review process within the AGN SC, as outlined in Section 4.3. Project Database. Core Members are eligible to coauthor any Publication to which they have made significant contributions.

The lead author of an AGN SC Publication is responsible for contacting all members who contributed to offer them the opportunity for authorship and regularly update all coauthors on its progress.

6.2. Author Lists

The author list for AGN SC Publications consists of two tiers: primary and supporting authors.

- **Primary.** Authors who are responsible for the reported work should be listed at the beginning of the author list as primary authors. The order of the primary authors is flexible and is typically determined by the lead authors, often reflecting their contributions.
- Supporting. Authors who contributed (e.g., feedback, comments) but were not directly responsible for the reported work are considered supporting authors and should be listed alphabetically after the primary authors.

External collaborators may be included as coauthors on AGN SC Publications, provided they have made significant contributions and the authors comply with data rights restrictions. They may also be included anywhere in the author list at the lead author's discretion, with a footnote indicating their status as external collaborators on Key Papers.

For Key Papers, the author list should conclude with "the LSST AGN Science Collaboration."

For conference abstracts, presentations, and proceedings, author lists are traditionally short, including only those who developed the presentation, followed by "for the LSST AGN Science Collaboration."

AGN SC Notes should have a concise list of authors directly involved in the analysis, method, or software being described.

6.3. Authorship Disputes

The lead author retains the right to challenge any coauthorship request by a collaboration member if they perceive a lack of significant contribution, whether through service to the AGN SC or intellectual engagement. In the event of authorship disputes, the Publication Panel will oversee the resolution process. Disagreements regarding authorship should be brought to the attention of the Publication Panel for review. Authors involved in such disputes are encouraged to inform the Publication Panel promptly using the AGN SC Publication Dispute Form.

7. Publication Review Process

The review process for AGN SC Publications ensures thorough collaboration review and feedback on all materials before dissemination. The lead author must notify the Publication Panel of their intent to distribute information with sufficient lead time to allow for review and comment by the collaboration. The review process depends on the type of AGN SC Publication, as discussed previously in this document. This structured review process ensures that all AGN SC Publications are of high quality and reflect the collaborative efforts of the AGN SC community.

In cases where time-sensitive work is involved, such as the emergence of new results or short-notice presentations, the lead author may request a shortened or abridged review process. This allows for timely dissemination of critical information without compromising the quality of the review process. Most importantly, it ensures that AGN SC members are not disadvantaged compared to external investigators who may have more flexibility with timelines.

7.1. Manuscripts (Publishable Material)

For all papers intended for publication, whether peer-reviewed or not, the lead author must notify the Publication Panel with an intent to publish. The process and timelines for different types of manuscripts are as follows:

Key Papers

- 1. **Comments.** The manuscript is sent to all AGN SC members for a mandatory three-week collaboration-wide comment period.
- 2. **Submission.** After addressing all comments, the lead author may submit the manuscript and informs the Publication Panel of its submission.
- 3. Revisions. The lead author will circulate the referee report upon receipt. After revising the manuscript, they will provide the collaboration with a two-week comment period to review the revised manuscript and the response to the referee. After addressing all comments received during this period, the lead author may resubmit the revised manuscript and notify the Publication Panel of its resubmission.

Standard Papers

- 1. **Comments.** The manuscript is sent to relevant subgroups for a mandatory three-week comment period.
- 2. **Submission.** After addressing all comments, the lead author submits the manuscript and informs the Publication Panel of its submission.
- 3. **Revisions.** The lead author will circulate the referee report upon receipt. After revising the manuscript, they will provide coauthors with a two-week comment period to review the revised manuscript and the response to the referee, unless the coauthors have waived this right. Such

waivers must be documented along with other Project materials. During this period, comments from the relevant subgroup are also welcome. After addressing all comments received during this period, the lead author may resubmit the revised manuscript and notify the Publication Panel of its resubmission.

7.2. Other Publications (Non-Manuscript Material)

For other types of publications, including talks, figures, and other conference materials, the lead author must provide a notification of intent to publish to the Publication Panel. The material will be sent to relevant subgroups for a mandatory two-week comment period. This review process ensures that all materials are thoroughly vetted and that feedback from the collaboration is incorporated before presentation or release.

7.3. Addressing Significant Issues

The above process is appropriate for uncontroversial feedback (e.g., correcting typos, rewording unclear text, adding missing citations). Though more serious issues would ideally be raised earlier in development, reviewers may identify significant concerns affecting the quality or accuracy of a Publication including, but not limited to, flaws in an analysis, erroneous assumptions, or necessary improvements to plots. Authors may challenge effort-intensive demands if they believe the changes are out of scope, reflect a need for future work, or involve assumptions valid only in their specific context. If disagreements arise, the following procedure should be followed to resolve them:

- Raise Issue. A significant issue with a Publication is raised using the AGN SC Publication Dispute Form. This form can be used by any AGN SC member to raise concerns about issues that remain unresolved after the revision process.
- 2. **Panel Review.** The Publication Panel will review the raised issue and forward it to the relevant subgroup coordinators or co-chairs of the AGN SC for further assessment.

3. Resolution. Based on the outcome of the review, the lead author will be informed of the decision, and necessary revisions will be requested to address any identified issue. If the issue is deemed to be a fatal flaw or otherwise critical to the publication, the manuscript may not proceed to submission until the issue is satisfactorily addressed. If the issue cannot be resolved, the Publication Panel may decide to halt the publication process until the issue is adequately resolved or, in rare cases, recommend that the publication be withdrawn.

This process ensures that significant issues are handled transparently, in alignment with AGN SC standards and goals outlined in Section 1. Purpose.

A. Version History

Version	Adopted	Changes
3.0	Jan 2025	Comprehensive restructuring to improve clarity and organization. Updated policy goals and clarified the functions of the Publication Panel. Introduced Project Management through Projects and the Project Database. Revised authorship guidelines and formalized the publication review process. Established procedures for authorship disputes and publication issue resolution. (Christopher M. Carroll, Donald P. Schneider, Ilsang Yoon)
2.0	May 2020	Revised.(Gordon T. Richards, Donald P. Schneider)
1.0	Aug 2019	Adopted. (Gordon T. Richards)