



LARGE SYNOPTIC SURVEY TELESCOPE

## Large Synoptic Survey Telescope (LSST) Project Publication Policy

Project Science Team (PST)

LPM-162 (rel1.2)

Latest Revision: December 18, 2017

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## Change Record

Version	Date	Description	Owner name
1	9/9/2015	Initial draft	Zeljko Ivezić
	10/27/2015	Introduction to Publications Board for comment	Z. Ivezić
	11/3/2015	<p>Following pub board feedback, Section 3 clarified as follows:</p> <p>Fourth paragraph changed from “All papers that have any authors who are supported by LSST Project funds to conduct the work described in the paper also fall under the LSST Project Publication Policy...” to “All papers that have any authors who are supported by LSST Project funds to conduct the LSST infrastructure work described in the paper also fall under the LSST Project Publication Policy.”</p> <p>Fifth paragraph changed from “Journal papers and conference papers fall under this policy, with some adjustments...” to “Journal papers and conference papers (including abstracts and posters for, e.g., AAS and SPIEE meetings) fall under this policy, with some adjustments...”</p>	Z. Ivezić
1.1	3/29/2016	Hyperlink for paper review request submission in Section 6 “Publication Review Process” changed from Drupal website to JIRA project.	Robert McKercher
	12/12/2017	<p>Section 3 changed from “Journal papers and conference papers (including abstracts and posters for, e.g., AAS and SPIE meetings) fall under this policy, with some adjustments...” to “Journal papers and conference papers (e.g., AAS and SPIE meetings) fall under this policy, with some adjustments...”</p> <p>Included “This policy also does not cover posters, presentation (e.g. those given at talks) and abstracts, DocuShare documents handled by the CCB, and community.lsst.org forum posts.”</p> <p>Purpose and Scope – some contents moved to Section 5.</p>	R. Gill



1.2	2017-12-18	Implementation of LCR-1193	R. McKercher



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# The LSST Project Publication Policy

## Purpose and Scope

The LSST Project Publication Policy outlines the approval process for published material. It further defines, in Section 3, which types of publications this policy applies to. There are three primary goals for this policy:

- To ensure the accuracy of published information about the requirements, specifications, design, performance, and products of the LSST Project.
- To recognize the contributions of the individuals responsible for bringing the LSST Project to fruition (LSST “Builders”).
- To enable publications by the broader community that use technical LSST data or information not publicly available, or instrumentation developed by the LSST Project.

## 1 Authorizing Body

The LSST Project Science Team is the authorizing agent for the LSST Project Publication Policy and must approve any future revisions.

## 2 Publication Manager and Publication Board

A Publication Manager is appointed for a term of three years by the LSST Director, in consultation with the Project Science Team. The Publication Manager reports to the Project Science Team. The Publication Manager oversees the logistics of the publication process, including the following responsibilities

- Working with the Project to maintain a public archive of LSST Project publications;
- Overseeing the publication review process described in subsequent sections;
- Responding to requests by the community for use of LSST intellectual property in publications;
- Assisting in the development of future publication policies; and
- Providing initial adjudication of publication-related disputes.

Quality control of the publication is the responsibility of the appointed review committee (see below), with oversight by the Publication Manager.

The Publication Manager chairs the LSST Project Publication Board, which advises the Publication Manager on a range of issues such as assignment of reviewers, requests for LSST intellectual property, requests from the science collaborations, conflict resolution, and open-source issues. The Board membership is chosen to be broadly knowledgeable of LSST hardware, software, and science requirements. Members of the Board are appointed for two-year terms by the Publication Manager in consultation with the LSST Director and the Project Science Team. The LSST Director, Project Manager, Project Scientist, and Systems Scientist are active ex-officio members of the Publication Board.

The Publication Manager is responsible for resolving conflicts that arise related to LSST Project



publications. If the Publication Manager is unable to resolve publication-related disputes, the final authority rests with the LSST Director, advised by the Project Science Team.

### 3 Publications Covered by this Policy

This policy covers the public presentation of LSST engineering requirements and products. Two types of publications are recognized in this policy: 1) technology papers that describe LSST infrastructure, and 2) data release papers.<sup>1</sup>

This policy covers all publications that describe LSST Project-funded work to design, develop, construct, commission, or operate the LSST, and all publications based on access to non-public intellectual property of the LSST Project or proprietary information related to the LSST Project.

This policy does not cover LSST papers that rely only upon public data. Science collaborations are encouraged to develop publication policies that recognize the contributions of those who brought the Project to fruition, through citation of relevant technical and data release publications.

This policy also does not cover posters, presentations (e.g. those given at talks) and abstracts, DocuShare documents handled by the CCB, and community.lsst.org forum posts.

All papers that have any authors who are supported by LSST Project funds to conduct the LSST infrastructure work described in the paper also fall under the LSST Project Publication Policy. The Publication Manager has authority to grant an exception if the contribution from project-supported authors is very minor and an internal review of the paper is being conducted within a science collaboration.

Journal papers and conference papers (e.g. AAS and SPIE meetings) fall under this policy, with some adjustments allowed for practical considerations. For example, if a contribution is severely limited in page length or is submitted as a conference paper, then a large number of authors, an extensive reference list, or a full acknowledgment may not be feasible. The Publication Manager has the authority to grant partial exceptions in such cases. When a large number of conference contributions are being prepared with a limited timeline for submission, shorter review periods with fewer internal reviewers may be necessary. These modifications to the review process will be at the discretion of the Publication Manager, who will have the responsibility to anticipate major conferences for which such flexibility will be appropriate.

The Publication Manager will be responsible for coordinating joint submissions for special journal issues and for major conferences where it is important that all submissions tell a consistent story. Individual conference talks and posters fall under the Publication Policy only if the author is representing the LSST Project, or the work was supported by LSST Project funds, or the presented work is based on technical LSST information that is not public.

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<sup>1</sup> After operations begin, data will be made available immediately to communities that need and can handle immediate unprocessed data (e.g., transient alerts). LSST will make available annual releases of calibrated, documented data with tools to use it.



## 4 Authorship

The authorship and citation policy for the LSST Project follows common ethical practices as outlined by the American Astronomical Society (AAS) and the American Physical Society (APS):

- AAS Ethics Statement, Publication and Authorship Practices:  
<http://aas.org/about/policies/aas-ethics-statement>
- APS Ethics and Values, Publication and Authorship Guidelines:  
[http://www.aps.org/policy/statements/02\\_2.cfm](http://www.aps.org/policy/statements/02_2.cfm)

See the Appendix for the most relevant portions of each statement.

There are two ways in which those contributing to the Project can be acknowledged, depending on the significance of the contribution to the work described in the publication.

1. When a publication describes a focused research effort that uses previously published work of the Project, the published Project work should be acknowledged by direct citation.
2. In the case of LSST system overview papers, LSST data release papers, and papers relying on unpublished work of LSST Project scientists and engineers, everyone who has made significant contributions to relevant parts of the LSST will be invited to be a co-author (see section on Builders below). Authorship order will consist of two parts. The first grouping consists of the individuals who were primarily responsible for writing the paper and doing the reported work – hereafter the “primary authors”. This first tier will typically consist of three to five authors, but there is no minimum or maximum number. The primary authors will determine amongst themselves the order in which they are listed. The remainder of the author list (“contributing authors”) will be alphabetical (see section on Publication Review Process below).

Potential contributing authors should be engaged in the review of the content of the paper as early in the production of the paper as practical. Each co-author is expected to review the manuscript before its submission. No one will be listed as a co-author without his/her explicit permission.

It is important that the Project recognize the engineers, scientists, and other individuals whose contributions have been vital to the development of the LSST infrastructure; these individuals will be designated as “Builders” (see next section). All relevant Builders will automatically be invited to join the list of contributing authors of Project papers that depend on areas to which the Builder contributed.

Scientists and engineers who are not Builders may request authorship on LSST Project publications if they have made significant contributions to the paper. These requests are submitted to the lead author.

LSST Project publications may include authors who are not members of the LSST Project.

## 5 Builders

In order to ensure that proper credit is given to those responsible for the design, construction, and operation of the hardware, software, and other infrastructure of the LSST, a list of “Builders” will be maintained by the LSST Project Director (or his/her designee) and posted to the LSST Project website.

Builders are those who have made substantial contributions to the LSST Project as a whole, including (but not limited to) the areas of optics, telescope, infrastructure, calibration, camera, simulations, data management, data pipeline software, commissioning, operations, and Project management.

Each person on the Builders list will be associated with one or more specific areas to which they have made substantial contributions. These areas will be defined and maintained by the Director (or his/her designee). Each Builder associated with an area will be invited to be a contributing author on papers subject to the LSST Project Publication Policy that rely substantially on that area; these are the “relevant Builders” mentioned in the Authorship section.

To further ensure that the contributions of LSST Builders are recognized, all science publications based on LSST data should reference the appropriate technology papers -- i.e., those LSST publications that describe the LSST infrastructure relevant to the study in question. This implies, in general, that every science publication based on LSST data must reference at least the primary LSST technical overview paper that describes the data used in the analysis. The individual LSST science collaborations are encouraged to develop their own publication guidelines that ensure recognition of the contributions of LSST Builders through references to technology and data release papers. See the LSST publication page<sup>2</sup> for key LSST papers to cite in a publication<sup>3</sup> and a template publication policy for LSST science collaborations.

See the separate document on LSST Builders for details on eligibility for the Builders list and maintenance of the list.

## 6 Publication Review Process

Internal paper review is a critical aspect of the LSST Project publication process for technology and data release papers. It is in the interest of the LSST Project and the broader community to ensure that only reliable and accurate results are published and that all interested LSST Project members have an opportunity to contribute to the publication through a constructive internal review process. The benefit to the primary authors is the engagement of LSST Project members with relevant expertise.

LSST publications that describe the LSST hardware and software infrastructure, subsystems, and simulations are designated here as technology papers. This designation is bestowed by the LSST Project Manager, with input from the LSST Director, Publication Manager, and Project Science Team; the list of technology papers will be maintained by the Publication Manager on a public archive. The author list of LSST technology papers consists of the scientists and engineers who contributed directly to the infrastructure being described.

After operations begin, LSST plans to make available annual public releases of calibrated, documented data with tools to use it. It is likely that the LSST Project will produce publications to describe each of these data releases. The production of such a paper would be authorized by the LSST Director, and the paper

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<sup>2</sup> <http://www.lsst.org/scientists/publications>

<sup>3</sup> <https://github.com/lsst-pst/LSSTreferences>



would be the responsibility of the Project Science Team. The author list would be alphabetical.

We outline the review process of technology and data release papers here:

1. When a first draft of the paper exists, the team of primary authors should engage all relevant Builders, who will be invited to review the paper and join the list of contributing authors.
2. When a project or analysis and the corresponding paper have been reviewed within the relevant subsystem, and the subsystem manager agrees that the paper is ready for review by the Publication Board (i.e., ready for publication in the view of the authors and the subsystem manager), the lead author requests an internal review by going to <https://jira.lsstcorp.org/browse/PUB>.
3. The Publication Manager, in consultation with the Publication Board, appoints a review committee for the paper consisting of typically three (at the Publication Manager's discretion) active members of the LSST Project or, if appropriate, science collaborations.
4. The review committee members will aim to submit their initial feedback to the authors and the Publication Manager within two weeks.
5. The authors should explicitly respond to the feedback from the review committee and post an updated draft of the paper.
6. Authors should consider acknowledging (in an Acknowledgement section of the paper) the contributions of any reviewer who has had a particularly significant impact on the content and quality of the paper.
7. Once the review committee members are satisfied, the Publication Manager will post the paper to an internal LSST Project site for a two-week comment period by the entire LSST Project, and announce it to the Project.
8. The primary authors are responsible for responding to comments and feedback from LSST Project members. The review committee members and the Publication Manager in consultation with the subsystem leads will arbitrate disputes on the scientific or technical content of the paper.
9. The Publication Manager is responsible for verifying that this process is followed and that all appropriate LSST documents are cited.
10. The paper may not be submitted for publication without final approval by the review committee and the Publication Manager.
11. Once the paper has been approved for submission, the lead author is in charge of the logistics of the publication and will submit the paper.
12. All referee reports, responses to the referee(s), and paper revisions will be made available to the collaboration on an internal web site.

To the extent possible, the authors will archive notes and software related to the published work in public or internal LSST repositories or document systems. These notes could include relevant details not included in the paper, descriptions and location of simulations and test data, relevant presentations, analysis code, communications between the analysis team and the review committee that are not already in an archived LSST system, etc. To the extent possible, the communication between the primary authors and the review committee, and other materials related to the work and the review, should be archived using tools created

by the Project. This material will provide an institutional memory of the work and will serve as an aid to future LSST work.

## 6.1 Science Papers Based on LSST Products

Before LSST operations begin, we can expect to see scientific papers based on LSST products such as the output of the operations simulator, the input catalog of stars and galaxies from which LSST simulations are generated, the simulated images of stars and galaxies, or the output catalogs of the processed images. Some of these papers will focus on LSST performance and science reach; others will focus on topics that are not specific to LSST.

If the LSST product is public and described in a citable publication, the publication is referenced and no review is necessary.

If the product is public but no citable reference exists, or the product is not yet publicly available, then the following review process is recommended. The benefit to the authors is the engagement of LSST Project members with relevant expertise.

The lead author should contact the Publication Manager, who will identify the expert within the LSST Project for the LSST data product used in the paper. The Publication Manager and the relevant expert will evaluate whether the proposed use of the product is appropriate. If the analysis described in the paper makes a statement about LSST performance, then the expert for the product (or his or her designee) will be given the right to review the paper to determine whether the data product was used appropriately. Authors should consider acknowledging the contribution of any reviewer who has had a particularly significant impact on the content and quality of the paper.

### Acknowledgments

LSST Project publications will contain a standard text that acknowledges funding entities in the LSST Project; authors may supplement this text with additional acknowledgement as required. See Document-3607<sup>4</sup> for details. The LSST Communications Manager is responsible for maintaining this material.

## 7 Requests for Use of LSST Intellectual Property

On occasion there will be requests from parties external to the LSST collaboration for use of LSST-developed intellectual property (IP) for a variety of purposes other than those discussed above. Examples would be for commercial use, general improvement of algorithms or hardware, or for use of still proprietary algorithms or hardware for other applications. The conditions for use differ, depending on whether or not the IP is part of the LSST open-source license. Under the open-source open-data policy, reuse of any publicly released LSST data or IP would fall under the open-use condition:

1. Proper attribution of the source, and

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<sup>4</sup> LSST acknowledgement text: <https://docushare.lsstcorp.org/docushare/dsweb/Get/Document-3607>



2. If the IP is modified, the enhanced algorithm shall in turn be made public under the same open-source license.

If neither of these conditions is satisfied, or if the request is for commercial use, individual agreements can be made with approval of the LSST Director and the creators of the IP in question. An example category would be use of LSST images or other IP for limited commercial purposes, in which a one-time non-exclusive world license might be granted. All such requests shall be handled on a case-by-case basis and referred to the Director for action.

## 8 Press Releases

All press releases that involve a publication that falls under the LSST Project Publication Policy must follow the LSST Press Release Policy (Document-3604).



## Appendix: Authorship policies of the AAS and APS

AAS Ethics Statement, Publication and Authorship Practices: [http://aas.org/about/ethics\\_statement](http://aas.org/about/ethics_statement) *“All persons who have made significant contributions to a work intended for publication should be offered the opportunity to be listed as authors. This includes all those who have contributed significantly to the inception, design, execution, or interpretation of the research to be reported. People who have not contributed significantly should not be included as authors. Other individuals who have contributed to a study should be appropriately acknowledged. The sources of financial support for any project should be acknowledged/disclosed. All collaborators share responsibility for any paper they co-author, and every co-author should have the opportunity to review a manuscript before its submission. It is the responsibility of the first author to ensure these.”*

APS Ethics and Values, Publication and Authorship Guidelines: [http://www.aps.org/policy/statements/02\\_2.cfm](http://www.aps.org/policy/statements/02_2.cfm) *“Authorship should be limited to those who have made a significant contribution to the concept, design, execution or interpretation of the research study. All those who have made significant contributions should be offered the opportunity to be listed as authors. Other individuals who have contributed to the study should be acknowledged, but not identified as authors. The sources of financial support for the project should be disclosed.”*