

# LIGO/LSC PUBLICATION AND PRESENTATIONS POLICY

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## 1 Introduction

The LIGO Scientific Collaboration (LSC) is responsible for the data analysis, validation, scientific interpretation and publication of scientific results derived from LIGO data. The LSC also has the function of prescribing the technical program for the improvements in the LIGO detector.

Access to the LIGO data is defined in the Memoranda of Understanding between the LIGO Laboratory and the LSC member's institution. Broadly, rights to LIGO data are gained by making a substantial and recognized contribution to LIGO designs, construction, commissioning and/or software development. By signing a Memorandum of Understanding, the participating LSC institution agrees to abide by the LSC publication policy.

The purpose of the LIGO/LSC Publication and Presentation Policy is to:

1. Assure scientific integrity of LIGO scientific and technical results
2. Assure appropriate recognition of individual and institutional contributions

The goals in formulating the policy are to:

1. Promote the timely publication of results
2. Promote the visibility of LIGO scientists and engineers, and especially, to encourage younger scientists and engineers to participate in the presentation and publication of results.
3. Provide an efficient mechanism for the internal review and be conducive to publication.
4. Promote open and free exchange of ideas and information within the LSC while research projects are being formulated and carried out.

During the course of free scientific exchange in a collaborative effort involving multiple institutions, privileged information is disseminated. It is the intent of this policy to insure that members of the LSC can present their work in an environment where that privilege is preserved. LSC reviews are intended to provide a constructive evaluation of publications by the LSC and its participating institutions.

This policy applies to collaborative work of the LSC carried out in the LSC committees and working groups as it bears on the scientific mission of the LSC. Work originating in the individual groups of the Collaboration that is not part of the collaborative program, not significantly influenced by interactions in LSC committees, working groups, or collaboration meetings, or not specifically identified in the Memorandum of Understanding is not subject to the policy. The policy applies to scientific articles, presentations at conferences, press releases and other popularizations.

Publications and presentations will be made in concurrence with the LIGO Laboratory Directorate.

## **2 Authorship**

1. The author list of the scientific publication of LIGO based observations will include all members of the LIGO Scientific Collaboration with rights to the LIGO data. The author list will be alphabetical and will include the engineers who contributed in an important way to the design, construction, installation and commissioning of the detector. A list of such people will be compiled by the individual institutions and approved by the Spokesperson in consultation with the Collaboration Council and the Laboratory Directorate.
2. New members who join the collaboration through a participating LSC institution will be added to the author list one year after arrival. New institutional members of the LSC will also be added after one year. Members of an LSC institution that leave their position and the collaboration will continue to enjoy authorship rights for one year after their departure date.
3. The authorship of all papers containing previously unpublished LIGO observations and observational results will consist of all the members of the Collaboration with rights to the LIGO data at the time the data were taken. The author list will be alphabetical.
4. The authorship of conference proceedings dealing with LIGO observations and observational results need only list the speaker as the author and state that he/she is writing for the LIGO Scientific Collaboration in the byline.
5. The authorship of invited or contributed abstracts dealing with LIGO observations and observational results need only list the speaker as the author and state that he/she is speaking for the LIGO Scientific Collaboration.
6. An up-to-date list of the members of the LIGO Scientific Collaboration and those that have left the Collaboration but are eligible to appear as authors on manuscripts concerning LIGO observations and astrophysics results will be maintained by the Spokesperson.
7. Authorship of papers and conference proceedings on technical results need only include the scientists and engineers responsible for the technical development.
8. Any conflicts on authorship on LIGO publications will be resolved by the Spokesperson in consultation with the Collaboration Council and the Laboratory Directorate.

### **3 Procedures for Determining the Necessity of an LSC Review**

1. The group leader of any participating LSC institution, including the LIGO Laboratory, has primary responsibility for determining when a scientific work should be submitted to the LSC for review. The group leader here is defined as the signatory on the LSC Memorandum of Understanding or the Director of the LIGO Laboratory. This determination must be made prior to submission for publication or posting on any public archive (e.g., LANL gr-qc, arXiv).

2. If the work in question satisfies any of the following criteria, then it **MUST** be submitted to the Spokesperson for further evaluation.

(i) It involves data from an LSC instrument, be it the detectors or physical monitors. The rationale for this is as follows. Whenever an LSC member writes a paper that contains a performance measure of an LSC detector or planned/proposed detector (such as an  $x(f)$  or  $h(f)$  graph), or mentions specific technical specifications of the detector, a reader might reasonably consider that the author is speaking for the collaboration. Thus, such papers, regardless of institutional authorship or other considerations, should go through the LSC review process.

Examples falling into this category include, but are not limited to, data from PEM channels of the LIGO detectors, previously unreleased or unpublished detector noise spectra, and astrophysical data from the GEO detector. Examples of LSC instruments include the LASTI facility, the Caltech 40m interferometer, and the Gingin interferometer. In addition, any detector improvements fall into this category.

It is conceivable that papers published by LSC institutions may use  $h(f)$  or  $x(f)$  data which have already been published in the open literature and do not satisfy any other of the criteria listed by the LSC publication policy. In this case, the LSC spokesperson may decide to waive an LSC review for the paper in question.

(ii) It was significantly influenced by interactions in LSC committees, working groups, or collaboration meetings, or by other interactions with members of the LSC outside the authors' research group(s). Any work defined in attachments to Memoranda of Understanding falls into this category.

(iii) It has used LSC software or hardware resources for the analysis of data from an LSC instrument, for the design of a future LSC instrument, or for other purposes that bear directly on the mission of the LSC. Examples falling into this category include, but are not limited to, DMTs, LDAS, and LAL software analysis tools, software tools developed for design of interferometer configurations such as e2e, FFT, Melody, Bench. Also included are research efforts in which the LIGO Lab or LSC institutions have contributed significant resources for the purposes of collaborative LSC research. Examples include but are not limited to optical coating and substrate development efforts, LSC laser development programs, and control system development. Any work performed under the auspices of direct funding from LIGO Laboratory or from joint funding with LIGO

Lab and/or LSC institutions that is influenced in some way by interactions in LSC committees, working groups, or collaboration meetings is also subject to the policy.

3. Even when these criteria are not explicitly satisfied, the LSC group leader is encouraged to consult with the LSC Spokesperson on the question of the need for an LSC review when there is a question concerning the applicability of an LSC review. Every effort will be made to have the LSC process add value to the paper without adding delays.

## 4 Procedures for Review

1. Using the above guidelines, if the determination is made that an LSC review is necessary, a member of the participating LSC institution may initiate the preparation of a manuscript for publication. The initiating author(s) will inform the Spokesperson of their intent. The initiating authors will provide a general outline of the manuscript and a proposed author list. The Spokesperson may request that the initiating authors present an outline of the manuscript at a Collaboration meeting. For technical papers not involving observations or observational results, this step is considered optional.

2. When a manuscript is near ready for publication, it will be submitted to a reviewer or set of reviewers within the Collaboration selected by the LSC spokesperson. The reviewer(s) confirms the most important results presented in the manuscript and provides comments on the content and recommendations on the authorship.

When the paper is submitted, it will be listed on a public LSC database maintained on the LSC home page listing the title of the paper, author list, date and time of submission, and date of completed LSC review. The reviewer(s) will provide feedback to the authors within **two weeks** of receipt of the manuscript.

3. Concurrent with review by selected LSC members, the manuscript will be posted electronically on a secure, password protected web site for general LSC review. A notification will be sent to all LSC members announcing the title, author list, and deadline for receiving comments. Members of the LSC will also have **two weeks** to provide comments to the LSC spokesperson.

4. In the event of disagreement amongst the reviewers or between the reviewers and the authors, the issue is to be resolved by the Spokesperson who may choose to bring it to a vote of the Collaboration Council.

5. The spokesperson in consultation with the review committee will approve the final version of the manuscript prior to submission.

### 4A. Guidelines for authors:

(i) Authors are strongly encouraged to submit papers for LSC review only after they are in a 'publishable' state. Premature or incomplete "work-in-progress"

drafts will cause unnecessary delays and use up goodwill on the part of the reviewers.

(ii) Submissions to the LSC Spokesperson include information regarding the target journal(s).

(iii) To aid the LSC spokesperson, authors are encouraged to suggest appropriate reviewers within the LSC. The spokesperson in turn will inform the authors who the reviewers are.

#### 4B Guidelines for reviewers:

(i) Reviewers will be selected by the LSC Spokesperson based on expertise on the topic of the submitted preprint and on the number of LSC reviews the potential reviewer has already carried out for the LSC. This is meant to ensure that burden of peer review is spread most evenly across LSC members.

(ii) Reviewers are strongly encouraged to complete reviews within 7 calendar days and will be given a strict 14 day period in which the review must be completed.

(iii) The review should evaluate the following criteria, in addition to the scientific relevance and correctness of the work:

\* Is the author list appropriate?

\* Does the reviewer wish to re-review the paper after reviewer's recommendations are addressed by the authors? If yes, there must be a three day turnaround time.

(iv) Reviewer's comments should be forwarded to authors for incorporation into the submission.

## 5 Invited Talks

1. Only results from LIGO data analysis that have been approved by the Collaboration Council, at either a Collaboration meeting or through polling the Collaboration by e-mail, may be shown publicly at invited talks and appear in proceedings. The preference is that the results will have been written and reviewed as for publication.

2. The Spokesperson in consultation with the Collaboration Council will ensure that opportunities to present LIGO results at workshops and conferences are equitably distributed among the LIGO Scientific Collaborators.

3. Invitations received by a LIGO Scientific Collaborator for a talk dealing with LIGO observations and observational results at a workshop or conference are regarded as invitations to the Collaboration. The invitation will be forwarded to the Spokesperson. The Spokesperson, in consultation with the Collaboration Council and the person who received the invitation, will decide whether or not to accept the invitation, and will select a speaker from the LIGO Scientific Collaboration. It is the responsibility of the person who received the invitation to respond to it.

4. A LIGO Scientific Collaborator invited to give a seminar or colloquium in which observational results will be presented (including detector presentations where LIGO or GEO strain plots are shown) can reasonably be said to be speaking for the

Collaboration. The LSC spokesperson should be informed of any invitations received by individuals, and should submit the presentation in substantially complete form to the LSC spokesperson before the presentation is given.

5. Invitations received by a LIGO Scientific Collaborator for seminars and colloquia *on technical matters* (as distinct from observations and observational results) are regarded as an invitation to an individual. Although no prior approval is needed from the Spokesperson in order to accept such an invitation, the Spokesperson should be informed of the date, place, and title of the seminar or colloquium.

6. Abstracts of the invited talks at conferences and workshops will be sent to the Spokesperson for posting prior to their public presentation. The transparencies to be shown will be made available to the LIGO Scientific Collaboration for posting on the LSC WEB pages and for submission to the LIGO Document Control Center DCC as close to the time of presentation as practical.

## **6 Contributed talks**

1. Any member of the LIGO Collaboration may initiate the submission of a technical contribution to a workshop or conference. The initiating author(s) will inform the Spokesperson of their intent. The initiating authors will provide an abstract of the talk and a proposed author list.

2. Abstracts of the contributed talks at conferences and workshops will be sent to the Spokesperson for posting prior to their public presentation. The transparencies to be shown will be made available to the LIGO Scientific Collaboration for posting on the LSC WEB pages and for submission to the LIGO Document Control Center DCC as close to the time of presentation as practical.