



# Virgo Collaboration Publication and Presentation Rules

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VIR-0335C-13

**Gianluca Gemme for the VEB**  
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## 1 Introduction

The goals of the Virgo Collaboration Publication and Presentation rules are to:

- Promote the timely publication of results.
- Promote the visibility of Virgo scientists and engineers, and especially to encourage younger scientists and engineers to participate in the presentation and publication of results.
- Provide an efficient mechanism for the internal review and be conducive to publication.

The rules apply to scientific articles, presentations at conferences, press releases and other popularizations.

## 2 The Virgo Editorial Board

The Virgo Editorial Board (VEB) is appointed by the Virgo Steering Committee (VSC) in order to:

- manage the reviews of Virgo Collaboration technical publications and conference proceedings
- manage reviews of abstracts and presentations at conferences
- maintain a public archive of publications and presentations
- nominate speakers for conferences
- maintain the Virgo author list
- maintain the publication and presentation rules

The VEB is composed by at least four physicists from the Virgo Collaboration. They are appointed by the VSC for a period of two years; their mandate can be renewed. Among them is the Chair, appointed by the VSC, who coordinates the VEB and gives regular reports to the VSC on the progress of current papers.

The VEB can rely on the part-time availability of a person to perform secretarial tasks related to the bookkeeping of papers on the Virgo web: posting and status of drafts, archiving of completed papers, updating of information. This service is performed with the technical support of EGO.

## 3 Authorship

### 3.1 The Virgo author list

The author list of the Virgo collaboration is alphabetical and includes physicists, engineers and technicians who have contributed in an important way to the design, construction, installation, commissioning and operation of the detector.

The VEB will publish new versions of the author list twice each year, on February 1 and August 1.<sup>1</sup>

The August list will contain the names of current members who joined Virgo prior to Dec 1 of the previous year and who have devoted at least 40% of their research effort toward Virgo since that date. It will also contain the names of past Virgo members who have left the collaboration (or whose research effort fell below the 40% level) after Aug 1 of the previous year.

The February list will contain the names of current members who joined Virgo prior to June 1 of the previous year and who have devoted at least 40% of their research effort toward Virgo since that date. It will also

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<sup>1</sup> Starting from February 1, 2015

contain the names of past Virgo members who have left the collaboration (or whose research effort fell below the 40% level) after February 1 of the previous year.

PhD students, or physicists who have defended their PhD since less than two years, will be inserted in the author list immediately following their joining date.

The addition to the author list of Virgo members who have less than 40% of their research effort committed to Virgo for special reasons should be brought up to the VSC for approval. The addition of such members to the author lists will be valid until the Virgo membership status of the person in question changes.

Papers written for the full Virgo collaboration will use the most recent list published by the VEB at the time of their initial circulation.

Individuals who have made significant contributions to a particular paper, but who are not on the Virgo author list, may be added to the author list of that paper. To add an author, his/her name should be proposed for authorship to the VSC, who will make the final decision.

Any special arrangements or conflicts concerning authorship should first be brought to the attention of the author contact from the relevant group (typically the Group Leader) who can bring them to the VSC, who will make the final decision.

### 3.2 Full author list papers

All archival journal papers reporting on:

- New observational and astrophysical results<sup>2,3</sup>;
- the technical description and the performance of the instruments;
- detector characterization and data quality studies based on not yet published instrumental data sets<sup>4</sup> and involving substantial parts of the installation of Virgo;
- data analysis methods based on not yet published instrumental data sets<sup>4</sup>

shall list all eligible Virgo members (the “Virgo author list”) as authors. The author list shall be in alphabetical order.

Collaboration members may opt out of authorship of specific papers by sending an email to the VEB Chair and to the Spokesperson.

Full author list papers must be first submitted to the VEB and cannot be sent for publication before internal refereeing under the auspices of the VEB, and after approval for publication by the VSC, as specified in [Section 4.1](#)

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<sup>2</sup> The expression "new observational results" describes any statement of an astrophysical or fundamental physics nature derived from Virgo gravitational wave data, not yet published in a peer reviewed international journal. The inclusion of new results in conference proceedings is not sufficient to make them “published”.

<sup>3</sup> The preparation of papers or proceedings of observational results is supervised by the Joint Editorial Board (JEB) described in section 3.5 of the LSC-Virgo MoU Attachment ([VIR-0324A-11](#)).

<sup>4</sup> The expression "unpublished Virgo data set" comprises all data that have not been designated as "collaboration open data" as described in [VIR-0324A-11](#) and [LIGO-M060038-A-M](#). The term "data" refers to all data streams of Virgo.

### 3.3 Short author list papers

Papers that report on:

- algorithm development with playground data
- technical papers on Virgo components without the use of substantial part of the Virgo hardware

can be “short author list” papers.

Also, review articles that do not use proprietary Virgo data and only cite public-domain results shall carry a short author list (see [Section 3.4](#)).

To illustrate aspects of data analysis techniques which address imperfections found in real data, and to support detector characterization and data quality studies, older data produced by the interferometers will be designated as ‘*collaboration open data*’. Normally, data from a given science or engineering run or produced in the framework of commissioning activities, including all active data streams, are eligible to qualify for collaboration open status after the analyses approved by the DAC for that run are concluded and published (or otherwise terminated).

Papers based on *collaboration open* data can carry a short author list.

Irrespective of *collaboration open* status, any new observational result (defined above) derived from such data will be considered a joint endeavor of both collaborations and disseminated as described above in [Section 3.2](#).

Papers that need more recent data (not yet declared *collaboration open*) shall be allowed a short author list if the scope of the paper is methodological and not a statement on the performance of the instruments or of its components, if no more than a small fraction (less than 10%) of available data (not yet declared *collaboration open*) is used, and if no inference is possible regarding any observational result at a meaningful level.

In all these cases,

- the short author list is expected to welcome and include all people who contributed to this work/activity;
- should the author list exceed the typical size of a working group (roughly 20-25 authors, or 10% of the Virgo membership), then the paper can reasonably be said to represent the entire collaboration in that it significantly advances data analysis or advanced detector development. In this case, all current eligible Virgo members will be listed as authors. Exceptions may be made when, for example, two working groups collaborate on a paper with a narrow focus.
- short author list papers shall contain an acknowledgment to the Virgo collaboration for access to the data and the statement of acknowledgment to the funding agencies. A standard acknowledgment statement will be maintained in the VEB web page and will be available in the TDS.
- short author list papers shall cite standard detector references. An updated list of standard detector references will be maintained in the VEB web page and will be available in the TDS.

Planned papers on collaboration open data shall be announced to the Virgo Editorial Board to verify that the scope of the paper is correct and that the choice of author list is appropriate, when possible, before the paper is written, with an outline of the paper, a description of the data used and the results drawn. In any case, the final draft is needed for a final judgment.

The content of short author list papers is under the responsibility of the authors, and, in general, the VEB only checks that the paper is actually eligible for short author list and does not contain any misleading or wrong statement or presentation. However, if the VEB decides that an expert of the collaboration should referee the paper in order to clarify questions, his/her advice cannot be simply discarded. Also these papers may not be sent to the publisher before the VEB has given green light for publication as a short author list paper, after the fulfillment of the procedure described in [Section 4.2](#).

In case of papers produced by members of the collaboration and sent for publication without following the rules described here, the VEB will immediately inform the VSC, which will decide on the official position of the Virgo collaboration and take all the necessary and consequent actions.

### **3.4 Conference Proceedings and Review Articles**

The authorship of conference proceedings are managed as the archival journal papers. The author list is by default the full Virgo author list, and a short author list is admissible only in the cases and with the limitations enlisted in [Section 3.3](#). In the case of conference proceedings, when the publisher refuses to concede the needed extra space for the printed Virgo full author list, the version “J. Surname for the Virgo Collaboration” may be used after explicit authorization by the VEB, in agreement with the Virgo Spokesman.

For presentations made under the MoU of LIGO and Virgo, the rules governing the author lines are slightly different, and the proceedings carry the line: “J. Surname for the LIGO Collaboration and the Virgo Collaboration”.

Review articles that do not use proprietary Virgo data and only cite public-domain results shall carry a short author list.

### **3.5 Presentations**

All presentations reporting on Virgo observations and astrophysics results as well as technical and/or methods papers which use instrumental data are eligible as “Virgo presentations”. Their authorship extends to the entire Virgo author list, which is indicated on the title slide by the expression “on behalf of the Virgo Collaboration” under the speaker’s name and affiliation.

Presentations which report, for example, R&D done by individual Virgo groups without the use of substantial parts of the Virgo hardware, or data analysis methods which are generic, which do not use unpublished Virgo data sets, and which do not report unpublished observational results, can carry a short author list.

#### **3.5.1 Speaker selection**

For any relevant conference or workshop, the VEB, in cooperation with the different coordinators and VSC, may propose a list of possible presentations and of possible speakers, aiming at a fair distribution of charge among individuals, groups and institutions.

Virgo members who participate to the organizing committees of conferences are requested to coordinate with the VEB, to prevent conflicts and to ensure a fair share of presentations among collaboration members.

The invitation received by members of the Collaboration, to present Virgo or parts of it, shall be forwarded to the VEB. In order to ensure a fair distribution of talks to individuals and institutions, the VEB will select a speaker from the Collaboration trying to keep a good balance between the respect due to the wishes of conference organizers and the requirement of a fair share of presentations among collaboration members and the need to promote young colleagues. If the invitee does not wish to accept the invitation, and the conference is of interest to the Collaboration, the VEB will identify a substitute.

Virgo members are kindly requested to inform the VEB of any relevant conference of which they have knowledge so that the VEB can keep up to date the “Forthcoming Conference Table” on its web page, independently of the selection of subjects and speakers.

## 4 The Publication Review Process

The VEB publication review is meant to provide constructive feedback to authors, as well as to ensure the authorship is appropriate and the Virgo Collaboration work is properly represented. The review process is managed by the VEB.

### 4.1 Full author list papers

1. New observational results must have been reviewed by the analysis group before a paper can be submitted to the VEB to start the publication process; an adequate, open and widely advertised discussions in the Collaboration, for instance during collaboration meetings, is also encouraged.
2. When a mature draft of the paper is ready, the authors upload it in the Editorial Bureau web page. The VEB Chair appoints up to two referees, chosen within the Collaboration. At least one of the referees should be an expert of the subject addressed by the paper, whereas the general presentation and understanding of the results are generally best evaluated by a non-expert. The reviewer(s) will provide feedback to the VEB within two weeks of receipt of the manuscript.
3. Concurrently the VEB Chair notifies all the Collaboration members announcing the title, author list, names of the referees and deadline for receiving comments, together with the link to download the manuscript. Members of the Collaboration will also have two weeks to provide comments to the VEB.
4. The analysis groups will have one week to update the drafts to incorporate the comments/suggestions from the collaboration. If a major change is needed, the period can be extended.
5. This process normally results in a new draft that takes into account the requests. The new draft is circulated to the reviewer(s) and to the Collaboration, setting a new date for feedback according to the magnitude of the changes occurred. The delay should normally be one week in case of minor changes, but will be extended if the paper went through major changes.
6. After the authors have addressed the comments of the collaboration, the reviewer(s) will make a recommendation about whether (or not) the paper should be published.
7. The VEB in consultation with the reviewer(s) approves the final version of the manuscript and proposes its publication to the VSC, which takes the final decision. For LSC-Virgo papers, the approval of the appropriate LSC executive committee should be sought in parallel to that of the VSC.
8. In the exceptional case when a paper on a hot topic requires an urgent treatment, a specific procedure must be considered. The decision to follow that procedure is taken by the Virgo Spokesman after recommendation from the Data Analysis Coordinator (or by the Detector Coordinator, or Advanced Virgo project Leader, accordingly). Steps 2 to 4 will then be shortened by

requiring fast feedback from the Collaboration and the referees, but without compromising the quality of the review process.

## 4.2 Short author list papers

Short author list papers are papers that do not present observational (astrophysics) data or results. Conference proceedings can fall into this category if they present previously published observational results. Review papers also fall into this category. The procedure for submitting and reviewing short author list papers is as follows:

1. The authors upload a draft of the paper in the Editorial Bureau web page.
2. The VEB checks that that the paper is actually eligible for short author list and does not contain any misleading or wrong statement or presentation.
3. If the check is positive, the VEB Chair notifies all the Collaboration members announcing the title, author list and deadline for receiving comments (usually one week), together with the link to download the manuscript.
4. The authors may decide (but are not obliged) to take into account the comments eventually received by the members of the Collaboration and to produce a new draft. Only in the special case, when the VEB decides that an expert of the Collaboration should referee the paper in order to clarify questions, his/her advice cannot be simply discarded.
5. At the end of a one week period the authors are free to submit to a journal.

## 4.3 Presentations

Virgo presentations (oral or poster) can be classified according to their subject and to the expected audience:

1. Virgo status at international conferences or in front of international official committees
2. presentations based on experimental data or on simulated data produced with Virgo software
3. presentations dealing with methods and software developed for Virgo data analysis
4. presentations as points 1, 2, and 3, but at national conferences or national official committees
5. presentations concerning R&D or data analysis methods developed by individual Virgo groups/members and not using Virgo data/software or parts of the Virgo detector
6. presentations in the framework of transnational R&D programs (e.g. studies on third generation detectors)

Presentations of type 1, 2 and 3 are submitted to the following procedure and cannot be presented before VEB approval:

1. The proposed speaker submits the title and the abstract to VEB, waiting for approval before submitting them to the conference. The speaker informs the VEB as soon as possible of the eventual deadline for the proceeding submission.
2. The VEB may call for a rehearsal session consisting of an oral presentation, possibly in the frame of a collaboration meeting or via internet connection. The speaker puts his slides on the VEB web page at least one day before the rehearsal. If no rehearsal is organized, the slides must be available at least one week before the start of the conference, so that they may be commented by the members of the Collaboration; in addition, the VEB takes care that the slides are reviewed by one or more collaboration members. The purpose of the rehearsal, respectively of the early availability of the slides, is to ascertain that the scientific and technical content of the presentations is (1) of high level, (2) agreed by the Collaboration, and (3) in accordance with the scientific rules set forth by the VSC.

3. The speaker modifies the presentation according to the received remarks and puts the final slides on the VEB web page at least three days before the presentation.

Any proposal made by VEB is submitted to VSC and is considered approved if there is no negative reaction within a week.

Presentations of type 4 are managed at a national level; it is nevertheless asked that authors keep the VEB informed in advance, and put the slides on VEB web page.

Presentations of type 5 are managed internally to the concerned group(s); it is nevertheless asked that authors keep VEB informed in advance, and put the slides on VEB web page.

Presentations of type 6 are managed by VEB according to the subject and to the audience; nevertheless speakers are requested to keep VEB informed in advance and to supply draft presentations on demand.

The presentations not included in the scope of VEB are those to be made during Virgo Collaboration meetings, lectures at schools (up to PhD schools), and popular lectures.

Presentations at STAC or at EGO Council meetings are surveyed directly by the VSC.