

Publication and Presentation Rules

The Virgo Collaboration

December 21, 2023

Contents

1	Virgo author list	2
2	Definitions of publication types	3
2.1	Full author list papers	3
2.2	Short author list papers	4
2.3	Conference proceedings	5
2.4	Presentations	5
2.5	Theses	5
3	Sharing opportunities of presentations on behalf of the Collaboration(s)	6
4	Review process	7
4.1	Full author list papers	7
4.2	Short author list papers	8
4.3	Conference proceedings	9
4.4	Presentations on behalf of the Virgo Collaboration	9

Forewords

The main bodies of the Collaboration involved with publications and presentations are:

- the Virgo Editorial Committee, see [3], Section 3
- the Speaker Committee, see [3], Section 3
- the Virgo author curator, see [3], Section 4

The documents relevant for the publications and presentations rules are:

- the by-laws of the Virgo Collaboration [2]

- the core program of the Virgo Collaboration [4].

Specifically, the by-laws [2] define general authorship rules on publications in Section 3.6 and identify in Section 6.4 the core program as the framework through which the contributions from the Collaboration members can be published.

Based on this general framework, the Publication and Presentation rules specify and detail the rules and procedures governing the publications and presentations contributed by the members of the Virgo Collaboration. The goals are to:

- Promote the timely publication of results
- Promote a fair share of the visibility opportunities among Virgo scientists and engineers, and involve early career researchers in the presentation and publication of results
- Provide an efficient mechanism for the internal review of contributions, that is conducive to publication

1 Virgo author list

- 1.0.1. The author list of the Virgo Collaboration includes, in alphabetical order, the Collaboration members that satisfy the eligibility conditions defined in Section 3.6 of the by-laws [2].
- 1.0.2. The author list curator updates the list of Collaboration members with default-authorship rights twice a year, in February and August, according to the following procedure:
 - The February list (published on Feb 16) includes the names of eligible members that have joined Virgo prior to June 1 of the previous year, or that have ceased to be eligible or left the Collaboration after February 1 of the previous year.
 - The August list (published on Aug 16) includes the names of eligible members that have joined Virgo prior to Dec 1st of the previous year, or that have ceased to be eligible or left the Collaboration after August 1 of the previous year.
 - PhD students and postdocs who have defended their PhD less than two years ago are inserted in the author list immediately following their joining date.
- 1.0.3. It is possible to petition for the addition of an author to the list of a specific paper as defined in 3.6.3 of the by-laws.
- 1.0.4. The inclusion of the members of new group to the author list is defined in 3.7.4 of the by-laws.

- 1.0.5. Any issues with authorship should be brought to the attention of the author list curator by the group leader. The VSC makes the final decision on special cases.
- 1.0.6. A collaboration paper includes the author list that was valid at the time of its first collaboration-wide circulation.

2 Definitions of publication types

This section defines the different types of publications. As a preamble, we first define the range of publications to which the policies outlined in this document apply.

- 2.0.1. These policies generally apply to publications resulting from collaborative work within Virgo or LVK committees and working groups. In addition, any work conducted within individual Collaboration groups that is part of the Virgo core program, or is significantly influenced by interactions within Virgo or LVK committees, working groups, or Collaboration meetings, or is identified in the group’s Memorandum of Agreement, is also subject to these policies.

2.1 Full author list papers

- 2.1.1. All archival journal papers reporting on Virgo observations, astrophysics results and detector or data quality characterization based on **non-public strain $h(t)$ Virgo data** shall use the Virgo author list defined in Section 1. The same applies for journal articles dealing with the technical description and the performance of the Virgo instrument. The corresponding author that represents the Virgo Collaboration in the final journal article should be “Virgo Spokesperson” (`virgo-spokesperson@ego-gw.it`).
- 2.1.2. In keeping with the goal of the Virgo Collaboration to promote the visibility of its members to the scientific community at large, there may be cases where a limited author list is more appropriate. The publication policy therefore allows for waivers to the rule 2.1.1 by petitioning the Virgo Editorial Committee. However, papers granted an exception should have a methodological purpose, should not include new observational results, or should avoid to characterize the detector performance over significant portions of an observing run. Decisions on whether or not a petition is granted will rest with the Virgo Editorial Committee chair in consultation with the Spokesperson. A brief written record of the reasoning for such exceptions will be posted on the Virgo Editorial Committee webpage for the publication.
- 2.1.3. The preparation of papers or proceedings on observational results is supervised by the Virgo Editorial Committee, the LSC P&P Committee and

the KAGRA Editorial Board ¹.

- 2.1.4. Collaboration members may opt out of authorship of specific papers by sending an email to the Virgo Editorial Committee Chair and to the Spokesperson.
- 2.1.5. The submission of full author list papers to a journal is subject to the Virgo Editorial Committee's approval as specified in Section 4.1.

2.2 Short author list papers

- 2.2.1. By default, publications using **public Virgo data** that have been released in bulk or released in short epochs associated to published events can use a limited (or short) author list, but publications that would preempt Collaboration publication plans are not permitted.
- 2.2.2. Technical or methodological papers on Virgo components reporting on a part or subsystem of the Virgo hardware (design, construction, commissioning) even when based on non-public data from auxiliary channels (with the exclusion of strain data, see 2.1.1) can use a short author list.
- 2.2.3. Review articles that do not use non-public Virgo data and cite only public-domain results shall carry a short author list.
- 2.2.4. The short author list paper is expected to welcome and include all contributors that made the work possible through an opt-in option which is made available to all the members of the Collaboration when the internal review process is initiated (see 4.2).
- 2.2.5. Should the author list exceed 10% of the Virgo membership, the paper can be said to represent the entire Collaboration. In this case, the full Virgo list in Section 1 will be used.
- 2.2.6. Short author list papers shall contain an acknowledgment for the use of public data [5] complemented by an additional acknowledgement to any missing funding agencies relevant to work.
- 2.2.7. Short author list papers shall cite standard detector references [1].
- 2.2.8. The submission of short author list papers to a journal is subject to the Virgo Editorial Committee's approval as specified in Section 4.2.
- 2.2.9. In the event of non-compliance with the above rules, the Virgo Editorial Committee will inform the VSC, which will decide on the official position of the Virgo Collaboration and take all the necessary actions.
- 2.2.10. Exceptions to the default rules should be brought by the Virgo Editorial Committee to the Spokesperson that will bring the issue to the VSC.

¹This will possibly be replaced by a Joint Editorial Board in the future.

2.3 Conference proceedings

- 2.3.1. The authorship of conference proceedings is determined according to the same rules of archival journal papers as described in Sections 2.1 and 2.2.
- 2.3.2. Proceedings reporting on previously published Virgo observations and observational results should list only the actual speaker(s) as the author(s). It should state that the speaker is writing for the Virgo Collaboration by using the following byline format: “Firstname Surname for the Virgo Collaboration”.
- 2.3.3. Similarly, proceedings published on behalf of the LIGO-Virgo-KAGRA Collaboration shall use the byline: “Firstname Surname for the LIGO–Virgo-KAGRA Collaboration”.

2.4 Presentations

- 2.4.1. Presentations of unpublished results or first-time presentations of published results are qualified as “on behalf of the Virgo Collaboration” (“on behalf of Virgo” for short in the following). The same qualification applies to conference presentations when the speaker has been invited to represent the Collaboration(s), or by virtue of the speaker’s role in the Collaboration (e.g., Spokesperson or working group chairs).
- 2.4.2. The authorship of presentations on behalf of Virgo is denoted on the title slide as “Firstname Lastname for the LIGO Scientific Collaboration and Virgo Collaboration” or “Firstname Lastname for the LIGO Scientific Collaboration, Virgo Collaboration and KAGRA Collaboration”.
- 2.4.3. Other presentations of Virgo results can be normally authored by the speaker, but authors should consult the Virgo Editorial Committee for guidance when in doubt. In that case, the Collaborations should be acknowledged in the slides of the presentation (see [5] for a standard text).
- 2.4.4. Presentation on behalf of Virgo must be reviewed as described in Section 4.4. Other presentations not explicitly on behalf of Virgo do not normally require formal review, but authors should, at a minimum, circulate slides to the appropriate working group(s) for comment, and submission to the DRS for review is strongly encouraged for conference presentations. Presentation submissions to DRS are always welcome.

2.5 Theses

PhD and Master theses that use non-public Virgo data differ from publications, as they are, by default, single authors and are bound to a tight schedule that may not be met by the review process. Ideally, an observational result in a thesis should be reviewed to the same standard as a Virgo or LVK publication. This goal may conflict, however, with review priorities and potentially introduce

unwelcome delays in the graduation schedule. Instead, the following guidelines shall be used:

- 2.5.1. An analysis claiming a new detection on non-public data cannot be published in a thesis until an official announcement has been made by the Virgo Collaboration or LVK.
- 2.5.2. When possible, other new observational results in a thesis based on non-public Virgo data shall be reviewed to the typical standard for presentation of preliminary results at conferences (see 4.3). The fallback scenario, in the case of a controversial analysis, is to only present “playground” results based on using public data. The thesis shall also contain a statement of acknowledgment to Virgo, to the funding agencies, and to other relevant institutions. A statement that results are under internal review and potentially subject to change may be appropriate. A written record will be posted by the Virgo Editorial Committee on its web pages, together with a statement from the advisor and the review committee chair, listing which data were used, and how.
- 2.5.3. If the thesis does not undergo a review or does not meet the above criteria, a disclaimer shall be added to the introduction, stating that the work does not reflect the scientific opinion of the Virgo Collaboration and it has not been reviewed by the Collaboration.
- 2.5.4. Students and advisors uncertain how to proceed should consult the Virgo Editorial Committee for guidance.

3 Sharing opportunities of presentations on behalf of the Collaboration(s)

- 3.0.1. The Speaker Committee selects speakers to present invited talks on behalf of the Virgo Collaboration, aiming at a fair distribution among individuals, groups, and institutions in accordance to the diversity charter endorsed by the Collaboration [8] and promoting early career researchers. This is done while also endeavoring to accommodate the preferences of the conference organizers.
- 3.0.2. Virgo members who participate in the organizing committees of conferences are requested to coordinate with the Speaker Committee.
- 3.0.3. The members of the Collaboration inform the Speaker Committee of any invitation to present on behalf of Virgo.
- 3.0.4. The members of the Collaboration inform the Speaker Committee of any conference relevant to the field.
- 3.0.5. The Speaker Committee maintains a list of past and possible speakers, and a list of relevant conferences.

4 Review process

The publication review is meant to provide constructive feedback to authors and ensure that the authorship is appropriate and the work of the Virgo Collaboration is accurately represented. The review process is managed by the Virgo Editorial Committee. The information of this section takes precedence over the condensed flow charts appended to this document.

4.1 Full author list papers

Following 4.1.1.20 of the by-laws, full author list papers are approved following an internal review process involving several individuals and Virgo groups as described below.

4.1.1. The approval process goes through three required circulations of each full-collaboration paper, each allowing at least one week comment from the Collaborations. At each step, the new version of the manuscript is submitted to TDS and DRS (for Virgo only papers) or DCC (for LVK papers).

4.1.1.1. Initial circulation – The initial draft need not be mature. Not all results may be ready, and text may be missing. The intent of the circulation is to ensure Collaboration review of overall scope and relation to other full-collaboration papers. The date of this initial circulation defines the appropriate author list to use:

- February $20nn$ list for February 16, $20nn$ to August 15, $20nn$ circulation or
- – August $20nn$ list for August 16, $20nn$ to February 15, $20(nn+1)$ circulation.

Procedural detail(s): Prior to this full-collaboration initial circulation it is wise to circulate a draft to the appropriate working group(s) for preliminary comment, in keeping with the policies of the working group(s).

4.1.1.2. Mature circulation – there should be at least one mature circulation with complete results and polished text, in coincidence with or preceded by a presentation to the full Virgo or LVK (in-person at a Collaboration meeting or via teleconference).

Procedural detail(s): At the presentation there should also be brief comments provided by one or more representatives of the results reviewers and comments from a representative of the Virgo Editorial Committee.

4.1.1.3. Final circulation – Following approval by the VSC, a circulation with a final 1-week comment period allows authors to opt out or opt in (see procedure in 1.0.3). At this stage, comments should be limited to serious errors, errors in the author list, etc. It is too late for issues of style or suggestions on what should have been done.

4.1.2. The Virgo Editorial Committee nominates an Editorial Board composed by Collaboration members in charge of the review of the paper. The Editorial Board is meant to ensure collaboration papers with the following virtues:

- Appropriate emphasis and balance, especially in abstracts, introductions and conclusions.
- Clear scientific context for searches or measurements described.
- Clarity and concision of text.
- Clarity of equations, including notational choices.
- Clarity of tables and figures, including captions.
- Self-consistency among text, tables and figures.
- Consistency among companion publications and with prior publications.
- Appropriate citation to previous work.

4.2 Short author list papers

4.2.1. Preprints eligible for short author list should be first presented to the appropriate working group. The working group chairs advise the Virgo Editorial Committee and Spokesperson on potential cases of preemption. If a determination of preemption is made, the submission of the short author list article shall be delayed appropriately.

4.2.2. The authors upload a draft of the paper to the TDS [7] and initiate a review submission through the DRS [6]. An automatic notification is sent to the Collaboration. In case a DCC/PnP review has been initiated, the authors should inform the Virgo Editorial Committee. A duplicate review on DRS may not be required in that case.

4.2.3. Upon reception the Virgo Editorial Committee decides if the paper is “in-scope” or “out-of-scope” whether the topic is in or out the scope defined by the Core Program of the Virgo Collaboration [4].

4.2.4. If the paper is marked as “out-of-scope” in the DRS submission page, no review is performed.

4.2.5. If the paper is “in-scope”, the Virgo Editorial Committee nominates an expert of the Collaboration that will referee the paper, and check that the paper is eligible as a short author list publication. The review should follow the guidelines automatically notified upon assignment to the expert.

4.2.6. The papers can be sent to the publisher once the Virgo Editorial Committee has given the green light for publication as a short author list paper. In the absence of an answer from the Virgo Editorial Committee, the authors are free to submit the paper to a journal after two weeks from the DRS submission.

4.3 Conference proceedings

- 4.3.1. The review of conference proceedings follows the same rules as for short author list papers described in 4.2.
- 4.3.2. Conference proceedings on behalf of the Virgo Collaboration follow the same path as papers that are “in-scope”.

4.4 Presentations on behalf of the Virgo Collaboration

The presentation review goes through a two-step process: abstract approval and slides’ approval.

- 4.4.1. The speaker submits the title and abstract to the Virgo Editorial Committee through the DRS [6] and waits for approval before submitting to the conference. This action should be done early (weeks to months before the conference).
- 4.4.2. The speaker uploads the presentation (actual slides) to TDS [7] and initiate the review process through the DRS [6]. An automatic notification is sent to the Collaboration. This action should be done at least one week before the presentation.

Articles

Collaborative work within Virgo or LVK

Any work within individual Collaboration groups that is part of the Virgo core program, significantly influenced by interactions within Virgo or LVK, identified in the group's MOA

Non public $h(t)$ data

Technical description or performance of full instrument

Public data

(not preempting collab pubplan)

Data from auxiliary channels

Report on instrument subsystem

Conference proceedings on behalf of Virgo

Other types of publications

Full author list

yes

If > 10 %
of Virgo
membership

no

Short author list

Review process

Virgo Editorial Comm nominates an Editorial Board in charge of review

Waiver requested to Virgo Editorial Comm for the use of non-public $h(t)$ data

1. **Initial circulation**
Pre-requisite: circulation to appropriate WGs
Intent of publication and scope
Date defines author list
TDS or DCC entry depending of Virgo or LVK
2. **Mature circulation**
Complete draft with all results
Presentation to full collaboration
3. **Approval by VSC**
4. **Final circulation**
Final one-week comments
Opt-in (petition)/Opt-out

1. **Circulation to relevant WGs**
Identify case of preemption
2. **Create TDS entry and initiate DRS review**
3. **Virgo Editorial Comm decides "in-scope" or "out-of-scope"**
4. **Only "in-scope" items reviewed by internal referee**
Two-week review period

Presentations

Collaborative work within Virgo or LVK
Any work within individual Collaboration groups that is part of the Virgo core program, significantly influenced by interactions within Virgo or LVK, identified in the group's MOA

Unpublished results
1st time presentation of newly published results
Invitation to represent the Virgo collaboration

Other types of presentations

“On behalf of the Virgo Collaboration” (or LVK)

A. Einstein for the Virgo Collaboration
on title page

Authored by the speaker

Acknowledge the collaboration

Review process

Speaker Committee should be informed of invitations

1. Submit title and abstract to Virgo Editorial Comm through DRS
when presentation is agreed with conference organizers
2. Submit to conference after approval
3. Submit slides to DRS
One week before conference

1. Circulate slides to appropriate WGs
2. No formal review required
But submission to DRS encouraged and welcomed

References

- [1] The LIGO Scientific Collaboration, the Virgo Collaboration, and the KAGRA Collaboration. *Standard detector references*. [link to page](#). 2021.
- [2] Virgo organization committee. *Bylaws of the Virgo Collaboration*. VIR-0456C-22. 2022.
- [3] Virgo organization committee. *Organizational structure of the Virgo Collaboration*. VIR-0455C-22. 2022.
- [4] Virgo core program committee. *Core program of the Virgo Collaboration*. VIR-0734A-23. 2023.
- [5] The LIGO Scientific Collaboration, the Virgo Collaboration, and the KAGRA Collaboration. *Acknowledgments instructions for the use of GWOSC data*. [link to page](#).
- [6] The Virgo Collaboration. *Document Review System*. [link to page](#).
- [7] The Virgo Collaboration. *Technical Documentation System*. [link to page](#).
- [8] *Diversity Charter of APPEC, ECFA, NuPECC*. [link to document](#).