

Apertif Publication Policy

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1. Introduction

The purpose of this document is to describe the publication policy of scientific and technical results from Apertif. This publication policy is designed to give fair credit to the authors and other individuals who have contributed to Apertif and to promote timely publication of excellent and accurate science results within the Apertif collaboration.

1.1 Governance

ASTRON is the party ultimately responsible for the development and deployment of the Apertif instrument as well as the operation of the integrated WSRT-Apertif facility on behalf of the other partners, funding agencies, and astronomical community. As such, the ASTRON management team (MT) holds the final responsibility for the definition and adherence to this and other relevant Apertif policies. Where necessary the ASTRON MT will serve as the final authority for high-level decisions or conflict resolution. The ASTRON MT has appointed the Apertif Science Executive (ASE) to oversee the definition and application of all policies related to the scientific exploitation of Apertif data on its behalf. The ASE strives to act based on a consensus of its membership. In the event that consensus cannot be reached, the ASTRON MT shall stand as the final decision-making body.

1.2 Applicability

This policy applies to

- Manuscripts submitted to electronic archives and/or scholarly journals
- Scientific or technical books or book sections about Apertif and its results
- Graphical or tabular material or discussions of results in electronic or hard-copy form based on proprietary Apertif data that are available to non-Apertif participants

Colloquia, conference presentations, conference proceedings, and theses are covered separately below. Other communications not directly covered by this document should be consistent with it.

Portions of this policy can be overruled by Memoranda of Understanding with specific partners only after agreement of the ASE.

1.3 Violations

If a user of Apertif data is found to be in violation of this policy, the ASE and the ASTRON Management Team (with the latter taking precedence over the former) will take appropriate action, up to and including the removal of all data rights and publication rights.

2. Types of Publications

This policy distinguishes between three types of publications: "technical papers," "data release papers," and "scientific papers."

2.1 Technical papers

Technical papers are those that describe the Apertif instrumentation, calibration, and software. Examples of such papers include articles published in SPIE Conference Proceedings or technically oriented journals such as *Astronomy & Computing*.

2.2 Data release papers

Data release papers describe the contents of the Apertif data releases to the public, including overall observing strategy and targeting descriptions. Details of strategies and targeting description for individual projects belong in *scientific* papers.

2.3 Scientific papers

Scientific papers are based on presentation and/or analyses of the Apertif data.

2.4 Other communications

These include articles for newspapers, the internet and all media releases.

3. Participant categories

This policy distinguishes between three categories of participants regarding publications.

3.1 Apertif Builders

Apertif Builders include engineers, designers and scientists that have contributed to the technical, organisational and scientific development of Apertif. The Apertif Builders list will be maintained by the ASE. It is expected that the membership list is a dynamic list, and it is expected that individuals will join and leave. The ASE is responsible for both new and expiring memberships. A procedure for this will be put in place by the ASE.

All Apertif Builders can participate in any Apertif paper (see Section 5.2 below).

3.2 Apertif Participants

Apertif participants include any researcher in an ASE approved scientific project that is contributing or has significantly (0.5 person year) contributed to the definition, execution and running of the Apertif surveys. Apertif Builders are considered Apertif Participants, even if they are not involved in a science project.

3.3 External Collaborators

This category consists of researchers collaborating with Apertif Participants on specific papers. External Collaborators may be proposed by Apertif Participants on the basis of a written proposal outlining a contribution that is not available within the existing science teams. External Collaborators are restricted to the Apertif data and paper(s) for which they have been proposed. A list of External Collaborators and

their associated paper(s) will be maintained on the Apertif Publication Wiki (or similar platform) that should be accessible to Builders, Participants and Collaborators.

4 Authorship

4.1 Data release papers

Authorship of data release papers is open to all Apertif Participants (including Apertif Builders; see Sec. 3.1). The lead author is the Apertif Builder who coordinates and is primarily responsible for the data release paper. Authorship after the lead author consists of all Apertif participants who agree to be co-authors, in alphabetical order of first surname.

4.2 Science and technical papers

Apertif science and technical papers will use the two-group author order system used in, for example, the SDSS and Gaia-ESO Surveys. The first-named group of authors is composed of the team analysing the data (the "lead team") or developing the technical components and writing the paper. The order of the first-named group of authors will be decided upon by that group, with the expectation that Apertif Participants will be the lead author of papers based on proprietary Apertif data. The second-named group of authors comprises Apertif Participants who have made a significant contribution to the paper but were not directly involved in the analysis or developing the technical components, and have communicated the details of this contribution in writing to the paper's lead author, and any Apertif Builders who request authorship from the lead author (see Sec. 5.1 for the request procedure). We expect the analysis teams to be as inclusive as is reasonable in this second-named group. The order of the second-named group of authors is always alphabetical by surname.

All authors in either group should have read and broadly understood the content of all papers they co-author. Similarly, the lead authors should ensure co-authors are aware of the paper contents and seek their agreement before submitting the paper. The ASE will adjudicate authorship disputes for all science and technical papers.

4.3 Colloquia, seminars, conference presentations, and conference proceedings

Colloquia, seminars, non-refereed conference presentations, and related proceedings are not required to follow the authorship policy set out in Section 4.2 above. Conference publications may list key authors and use the phrase "and the Apertif Team" in place of a long author list. However, any non-refereed conference presentation or proceeding that does not follow the authorship policy set out in Section 4.2 may only include qualitative results based on papers that have been published or submitted for publication, and it must reference those papers as the primary source for those results.

Refereed conference presentations and proceedings are also required to follow the authorship policy set out in Section 4.2 above. Examples of such proceedings include articles published in SPIE Conference Proceedings or technically oriented journals such as *Astronomy & Computing*.

4.4 Theses

Graduate and undergraduate theses are typically authored by a single person. It is required that theses based on proprietary Apertif data acknowledge the contribution of the Apertif team and or Apertif collaborators and reference the papers describing thesis results that have been published in or submitted to research journals.

4.5 Other communications

Press releases to the media should be authored by an Apertif Participant in cooperation, if needed, with a PR officer of a related organisation. Apertif Participants planning to submit a press release based on or involving Apertif data should notify the ASE in advance in order to allow for coordination of associated press coverage from other relevant Apertif host organizations.

5 Publication Procedure

5.1 Science and technical papers

Scientific and technical papers both follow the same procedure as outlined below. Any active Apertif Participant can propose to lead to a paper. When proposing a paper, and assuming there are no conflicts with already assigned papers, an entry is made on the Apertif Publication Wiki announcing the authors' intention to commit to delivering a draft paper within a reasonable time to be agreed between the lead author and the ASE, after which the proposal expires.

A "reasonable time" is expected to be no more than one year. This period can be extended in exceptional cases by the ASE on written request by the lead author giving a detailed reason for the delay and a clear schedule for completion.

The paper proposal must include a paper title, a lead author (who must be an Apertif Participant, Sec. 3.2), a list of current project members, and a brief abstract. The Apertif Publication Wiki will announce each proposal to all Apertif Participants. The lead author and project members then have exclusive rights for that scientific use of the related Apertif data during the "reasonable time" agreed upon. Note that this only applies to the specific usage of the data as defined in the paper description. Other usage of these data is still allowed by other Participants.

Final drafts must be posted to the Apertif Publication Wiki for access by all Apertif Participants and announced to the collaboration. During the following four weeks, interested Apertif Participants and Apertif Builders can request co-authorship and make comments. The lead author must accept authorship requests from Apertif Builders. The lead author may accept or reject authorship requests from Apertif Participants who are not Builders, depending on whether these Participants have been judged by the lead author to have contributed significantly to the paper. Any conflict on the authorship will be settled by the ASE.

During this same period, the paper will be reviewed by the ASE who may decide, if necessary, to appoint an expert from the Apertif Participants as an internal reviewer of the paper.

At the end of the four-week period, the lead author is required to revise the paper in response to the received comments and other valid requests. The lead author must also circulate a response to the most important comments that have not been taken into account in the revised version. At the end of the four-week period or the

revision process - whichever is longer - the final version of the paper must be posted to the Apertif Publication Wiki and sent to all co-authors three working days before submission to the chosen journal to solicit final critical comments or issues. No further comments are expected at this stage.

The lead author may request an expedited period for comments and review, which may be shortened to a minimum of two weeks. The ASE will determine if the circumstances warrant the shorter period. In this case the lead author should announce the plans to post a final draft at least four weeks before the end of the shortened review period; this is to ensure that all Apertif Builders and participants have ample opportunity to request authorship.

It is the responsibility of the lead author to ensure that all co-authors are aware of the paper and its contents and agree with the methods and conclusions presented there. If any co-author believes there is a serious issue with this version of the paper they may appeal to the ASE, who have the power to stop the submission of the paper or withdraw it until the issue is resolved.

The paper is not considered public until its final version has been posted to the Apertif Publication Wiki or until any embargo has been lifted by the journal (to be noted on the Apertif Publication Wiki), whichever is later. Until the paper is public, neither the paper nor any results from it can be quoted in public, referenced in other publications, or any other manner without permission from the lead author. This includes submission to preprint servers such as ArXiV.

The project team must post the final accepted or published version of a paper to the Apertif Publication Wiki as soon as possible after revision in response to external peer review.

Papers based on projects started with non-public Apertif data must follow this procedure even if the data used become public during the course of the project.

5.2 Data release papers

Major releases of Apertif data will be accompanied by one or more papers describing and detailing the contents of that data release. These will be coordinated by the ASE, normally led by an Apertif Builder, and posted to the Apertif Publication Wiki no less than four weeks before submission for comment by (all) Apertif Participants.

5.3 Colloquia, seminars, conference presentations, and conference proceedings

In any colloquium, conference presentation, or other oral or display presentation, the presenter may make use of proprietary Apertif data and/or unpublished Apertif results after approval of the lead author (Sec. 5.1) and is expected to give appropriate credit to the Apertif Project and those involved with producing the results presented. This policy also applies to digital versions of those presentations hosted on conference websites, but no extra material can be posted (e.g., "extra slides" with unpublished material that were not presented must be removed before posting).

Conference proceedings must follow the procedural rules set out in Section 5.1 or 5.2 as appropriate. Given the realities of conference proceeding deadlines, authors may request an exemption from any part of the Publication Policy from the ASE. Such requests must be made at least three weeks before the deadline.

5.4 Theses

Any thesis in which Apertif data or the Apertif instrument itself plays a key role must be announced on the Apertif Publication Wiki when they are begun. It is the responsibility of the Apertif Participant and their home institute to find a process by which the rules of the home institute and the Apertif Publication Policy are both met when the thesis is published. Proposals for thesis projects must be submitted to the ASE well in advance of the thesis start and students should not start or be assigned the project until approval of the ASE has been given. Thesis projects must not clash with papers or projects already in progress.

5.5 Other communications

Articles for newspapers and the web and all media releases must be approved by the ASE.

6 Page charges and open access

ASTRON and the ASE will not be responsible for page charges for any scientific paper. Lead authors of papers who wish to publish in a journal with page charges are responsible for those page charges.

All scientific and technical papers must be published in open-access journals or in a format that ensures open access (such as the arXiv preprint server) within six (6) months of publication. The open-access version must be the accepted version of the publication. Scientific papers and data release papers must not be submitted to preprint servers prior to acceptance by a refereed journal.

7 Apertif Acknowledgement

All Apertif publications must include the standard Apertif acknowledgement. The current version of the acknowledgement will be found on the Apertif Publication Wiki.

This acknowledgement is:

This work makes use of data from the Apertif system installed at the Westerbork Synthesis Radio Telescope owned by ASTRON. ASTRON, the Netherlands Institute for Radio Astronomy, is an institute of the Dutch Research Council (“De Nederlandse Organisatie voor Wetenschappelijk Onderzoek, NWO).