

The CMS Standards of Scientific Communications

This note refers to a number of guiding principles of the CMS Collaboration. They seek to guarantee the free access to all CMS data for all CMS members, transparent and reproducible analyses and the communication of results from the CMS experiment to the scientific community, the general public and the press while ensuring the scientific reputation of CMS.

The matter is complex and sensitive and cannot be fully specified. The success and the benefit of these guidelines to CMS as a whole, to its scientists and its collaborating institutions will depend on a common understanding within CMS and on the goodwill and common sense of all its members.

Violations of CMS Rules

In the event that the spirit of these guidelines has not been followed, appropriate actions will be taken, as specified in the CMS Constitution, Annex 3.2:

Participation of individuals in CMS is at the discretion of the institute to which they are accredited. Should an individual be guilty of a serious violation of the rules of CMS, the Spokesperson shall bring the matter to the attention of the relevant group leader, who will be expected to take appropriate action. If the problem is not quickly resolved, the Spokesperson shall bring the matter to the Collaboration Board who will decide on further action.

CMS Constitution

The CMS Constitution specifies many of the issues for scientific publication and presentation. The Constitution is available on the CMS links¹ and some relevant excerpts are given below.

- CMS Scientific Results and Publications (Section 7)

Opportunity to participate in all stages of the production and publication of CMS data results must be open to all members of the collaboration. It is the responsibility of the Spokesperson, Physics Coordinator and the Chairperson of the Publications Committee to ensure that this is so.

All material that involves the use of CMS raw data or CMS software, which is to be made available outside CMS, must be approved.

In extraordinary cases it may be necessary for the Chairperson of the Collaboration Board and the CMS Spokesperson to inform the editors of a journal that a submitted paper is not endorsed by the CMS Collaboration. Following this, the CMS Collaboration Board will be informed and decide on further actions to be taken.

¹ <https://cms.web.cern.ch/org/cms-constitution-rules-and-guidelines>

- CMS Conferences (Annex 5):

The CMS Conference Committee is responsible for promoting and organizing the representation of CMS at scientific fora. The Conference Committee shall actively pursue the goal of an equitable distribution of talks throughout the whole Collaboration and the participation of younger collaborators. All available talks are announced to the collaboration.

Only approved material can be included in CMS talks to non-CMS-exclusive audiences. For all talks, the slides must be submitted for approval to the Conference Committee a week before the talk is given. Approval is by Physics Coordination or the relevant subsystem Institution Board.

When a CMS member is directly invited to give a talk falling within the scope of the Conference Committee, that is a talk whose major subject is the presentation of CMS results, they must contact the Conference Committee without delay.

Guidelines for Other Presentations and Publications not covered by normal CMS rules

Publications using CMS data, by a limited list of authors from within CMS or elsewhere, may only be based on information already published by CMS. Specific excerpts of the CMS guidelines are given below.

By good etiquette invited speakers on any subject that has a bearing on CMS should inform the CMS Conference Committee chairperson of the title and the venue of the talk. In most cases it is expected that the Chairperson would give an almost immediate positive signal. However, there may well be a few cases that sit on the borderline, which would then be dealt with by mutual discussion. The venue, title and the talk file should be posted on the CMS conference web site.

By good etiquette authors writing on any subject that has a bearing on CMS should inform the CMS Publications Board Chairperson (or Communication Group Head for the case of outreach articles) of the title and the abstract of the paper prior to submission for publication. In most cases it is expected that the Chairperson would just take note. However, there may well be a few cases that sit on the borderline, which would then be dealt with by mutual discussion.

In all cases only information "approved for public dissemination" should be used. By good etiquette, it is strongly recommended that the CMS authors present, before submission for publication, the contents of the paper in the appropriate CMS meeting or committee to bring attention to their work and get feedback. It is also recommended that the authors thank their CMS colleagues in the paper in question.

The fabric of collaborations in HEP is sewn with the common understanding that results belong to the experiment and not to individuals. Our individual actions should strengthen this fabric and not weaken it.

Guidelines on Blogs

Guidelines are needed for blogs due to sensitivity of the subject and requests coming from outside

agencies for people in CMS to blog about their work. Wide internal discussion, even if contentious, is useful and healthy in a Collaboration of our size. However, people should act with the normal common sense, decent manners and sensitivity to possible contentious matters when in the public arena.

Scientific discussion and interpretation of CMS physics results should be done carefully. Nothing should be discussed or shown that has not yet been approved. Furthermore, bloggers should kindly refrain from posting discussions on just-approved CMS results until the collaboration has officially presented them first. This can be after the first public talk is presented or after the results have been accepted for publication.

By the same common sense and decency, blogs should never be used to express dissatisfaction with any member of CMS or of any decision by any of its bodies. It should be assumed that while we may/can engage in lively discussions prior to any decision of CMS, the full Collaboration will stand behind the decision once the latter is made.

Communications with the Press or the Public

There are informal interactions with the Press and the Public wherein CMS collaborators should keep in mind that they are, in fact, representing the CMS Collaboration.

Members of the CMS Collaboration should keep in mind in discussions with the public and especially the press that their comments may have an impact on the scientific reputation of CMS or on the relationship of CMS with its supporting funding agencies. CMS Collaborators should consult the Spokesperson, the CMS Communication Group or the CERN or national Press Office if time permits in order to make a balanced statement to the public or press. CERN offers media training for physicists and CMS itself has made resources available in preparation for contact with the media. CMS physicists should strongly use these resources.

In general, significant results are first made by a CERN press release and seminar. That release is then made available to all national CMS press offices, which send the release to all institutes of that country. Additions to the CERN text highlighting the contributions of that country or institute are encouraged. It is important that the release of major results occur in this time ordered fashion although the exact wording of the CERN press release need not be followed.

CERN has formulated a policy on the process by which LHC 'discovery' results are made public. The CMS Collaboration has already agreed to, and will, in future, abide by the CERN guidelines.

Prior Violations of CMS Rules

Letters have been sent in cases where publication of interpretations of CMS data was submitted by a few CMS collaborators immediately after publication by the whole CMS collaboration. In all cases the group leader of the relevant institute took prompt corrective action. Typical text of the letter follows:

“Thank you for making CMS aware of the paper which you propose to be published immediately after our new publication. We feel that this rapid action is an improper use of the privileged

information that is available to our CMS collaborators. Indeed, we ask for a one-week delay after our paper is published before you submit your paper. In that way, the advantages of CMS membership will not be extended to papers of this type, giving unfair advantage. The purpose of being a member of CMS is not to gather CMS information in an effort to be first with individual publication. All CMS members should, rather, be working within the CMS collaboration so as to improve our publications”

A message was sent in regards to a blog of a CMS Collaborator both to that member and the group leader of the relevant institute. The group leader took prompt corrective action.