

## Access of non-ATLAS physicists to ATLAS data and unofficial results

---

The following three policies are envisaged to guide collaborations with non-ATLAS physicists (e.g. theorists). The first two involve ATLAS collision data and/or unofficial results based on data. The third covers ATLAS sensitivity studies performed only with simulated data.

1) Short-term association. Non-ATLAS physicists benefiting from this status participate in the analysis work leading to one or more papers, have access to ATLAS data, and become authors of the paper(s) to which they have contributed. Short-term association requires CB endorsement. This policy was approved by the ATLAS Collaboration Board (CB) on 7 October 2005, and revised by the CB in October 2012.

2) Interactions with authors of Monte Carlo generators and related tools. The persons involved do not normally become authors of ATLAS papers, and in no case do they have access to ATLAS data. They may however be involved in discussions of results not yet approved for presentation outside ATLAS (but preliminarily approved by Physics Coordination). Such interactions do not need CB endorsement, and are managed by Physics Coordination. This policy was approved at the February 2009 CB.

3) Sensitivity studies using only Monte Carlo simulations. In such cases the non-ATLAS physicists have no access to ATLAS collision data or general access to ATLAS internal web pages, but would participate in discussions of Monte Carlo simulated data analysis. Work will normally be directed towards establishing ATLAS' sensitivity to new physics hypotheses – typically the non-ATLAS physicists would be experts on the physics models being considered. Such interactions are managed by the Physics Coordinator. This policy was approved at the October 2009 CB.

## Short-Term Association with ATLAS

### Introduction

It is likely that ATLAS may wish to collaborate with groups or individuals that are not members of ATLAS for specific scientific or technical topics. These collaborations will typically lead to a dedicated paper including co-authorship on that publication. Examples include:

- Short-term visitors not associated with an ATLAS institution.
- Theory groups or individuals that wish to collaborate on a dedicated study.
- LHC accelerator physicists collaborating to combine machine instrumentation and ATLAS capability to establish a precise estimate of the beam properties.

### Guidelines

Formal short-term associations shall normally be limited to the cases where an external person or group brings expertise that is not resident within the ATLAS collaboration. The external group or individual should provide resources and contributions well in excess of what an ATLAS group or member would normally contribute, over a similar period of time, to an ATLAS study leading to a given publication.

The final decision on whether a formal short-term association should be undertaken shall rest formally with the Collaboration Board, acting on a recommendation from the ATLAS Spokesperson. The Spokesperson is expected to establish that there is strong support for the recommendation within the ATLAS community by the following procedure:

1. A written proposal shall be prepared.
2. The proposal shall be discussed and approved at an Executive Board meeting. This means in particular for theory contributions that the Physics Coordinator shall agree with the proposal.
3. If step 2 is passed, the ATLAS Spokesperson and CB Chair shall circulate the proposal to the CB for endorsement. The vote may be undertaken by e-mail.

# Interactions with the authors of Monte Carlo generators and related tools

## Introduction

---

During the data-taking phase, extensive comparisons of ATLAS data with the predictions of Monte Carlo (MC) generators, and tuning of the generator parameters, will need to be made. Interactions with the authors of MC generators, or of related phenomenological tools (referred to as "MC authors" in the below), could obviously be very useful to speed up the process of understanding the data and their modeling. Such interactions will usually take place during workshops or when preliminary ATLAS results are presented at conferences. It could however be necessary, in some cases, to discuss unpublished<sup>1</sup> results with physicists from outside ATLAS. The procedure proposed here addresses such cases.

## Guidelines

---

- Physics Coordination decides which processes may benefit from early interactions (i.e. before results are published) with MC authors, and authorizes discussions with specified MC authors by individuals or physics groups. Physics Coordination decides also which plots and results can be shown in these discussions (see below). In no case will direct access to ATLAS data be given.
- The plots and results discussed with MC authors must have been endorsed by Physics Coordination, to make sure that the results are solid and stable enough, and that they are not of a "sensitive nature".
- The MC authors with whom discussions about unpublished results are undertaken are formally asked (through a mail from the Physics Coordinator in copy to the Spokesperson) to maintain confidentiality about these discussions.
- MC authors interacting with ATLAS will normally be acknowledged in the relevant papers. They will not sign the papers, unless their contribution to the results described in the paper is significant. The latter case requires approval by the Physics Coordinator and the Spokesperson, after consultation with the paper editors, the Publication Committee and the Authorship Committee.

---

<sup>1</sup> Here and elsewhere in this document, "unpublished" refers to results that have not yet been approved for presentation outside ATLAS.

## Sensitivity studies using only Monte Carlo simulations

A third form of collaborative work between ATLAS members and non-ATLAS physicists concerns studies which do not use real data, but do use ATLAS Monte Carlo simulations. Typically, such work would involve establishing ATLAS' sensitivity to new ideas or physics models – the non-ATLAS physicist would be an expert on the specific hypotheses being explored. The non-ATLAS collaborator would not have access to real ATLAS data or general access to ATLAS internal web pages - such access requires a short-term association.

As ATLAS software and simulated event samples will be used in the work, results may not be made public, or discussed further outside ATLAS, except in accordance with ATLAS approval procedures. The non-ATLAS members do not have direct access to ATLAS simulated event samples or software (e.g. they do not run analysis jobs), but they may participate actively in discussions of the analysis work being done by ATLAS members, including discussions of analysis strategies, plots and expected results.

In many cases such sensitivity studies may be of sufficient interest to lead to the writing of an ATLAS physics PUB note. Such a note will be authored by the ATLAS Collaboration, as normal, but the full author list of the PUB note, noted for example in CDS, would include the collaborating non-ATLAS member(s), assuming they have indeed made a significant contribution. The decision on whether or not to include a collaborating non-ATLAS member on the list will be made by the chair of the Publications Committee after consultation with the Physics Coordinator. The non-ATLAS physicists involved should respect the confidentiality of the work done in collaboration with ATLAS, especially before ATLAS approval.

When such a piece of work is started, it is the responsibility of the participating ATLAS members to inform, and obtain prior approval from, the Physics Coordinator. This should be done even if, at the start of the work, it is unclear if it will proceed to a PUB note. The Physics Coordinator will keep a list of such work in progress. When such work is terminated, the Physics Coordinator should also be informed.