

JENAS: Joint ECFA-ApPEC-NuPECC Working Group Recognition of Individuals

“Would like to hold a second meeting to collect your feedback from the collaborations in late September [date of meeting has been set for Monday Oct 5 at 14:00 CERN time]. Since we allow collaborations to be represented by two people in this discussion, you may consider to be represented in the discussion by both a senior and an Early Career physicist of the collaboration.”
[ECFA report](#)

ATLAS responses on request for feedback:

1. Do you recognize the issue in your collaboration?
 - a. *Answer: Yes. ATLAS acknowledges that there are many challenges associated with recognising the contributions of our colleagues, especially those in large experimental collaborations with hundreds to thousands of authors on a publication. This important issue must be addressed at many levels: recognition internally to the experiment, within our field, and outside of particle physics.*
2. Does your collaboration consider it an important/urgent topic?
 - a. *Answer: It is very important to ATLAS and several actions, as listed below, have been taken to raise awareness and provide new outlets for recognition. However, even with everything done thus far, it remains an ongoing priority to continue such efforts as still many issues remain to be addressed.*
3. Do you already have a forum to discuss this?
 - a. *Answer: ATLAS has the Early Career Scientists Board whose mandate is to represent common interests of the early career scientists, advise the Collaboration Board and the ATLAS Management on any matters that concern the early career scientists, propose specific actions to the collaboration, and help the early career scientists to integrate better within the collaboration. This Board sponsors several events in ATLAS every year and organises information gathering/surveys on given topics (see below) to collect the feedback from the collaboration. This Board meets several times a year with the ATLAS Management and with the Collaboration Board Chair.*
 - b. *To address the issue of allocation of recognition without bias, the ATLAS Diversity and Inclusion group meets several times per year to discuss, amongst many other topics, such concerns, and reports regularly its observations to the ATLAS Collaboration, for e.g., on the demographic composition of appointments, conference talk allocation, etc...*
 - c. *The topic of recognition is followed up and discussed by the ATLAS Collaboration Board in its meetings (in the thrice-yearly ATLAS Weeks) and by the Chair of this body. It is also discussed in an open forum during ATLAS Weeks. The ATLAS Management discusses, promotes, and implements mechanisms for recognition as discussed below.*
 - d. *However, it is important to not forget that recognition is needed at all levels (not just early career), to enable career progression and enhance the chances for better research funding for mid and late-career colleagues. Recognition should be*

allocated across all of the demographics, in order to publicly recognise work well done, which is important for morale and team cohesiveness.

4. Can you provide feedback on "best practices" that you already have implemented?

a. *Answer: Below, you will find itemised the various study groups and surveys created over time to gather information, and details on the implementation of the outcome of this information gathering.*

- i. *Creation of ATLAS Recognition task force in 2013/2014 with documented recommendations. A follow-up recognition study was performed in 2018.*
- ii. *Creation of the ATLAS Early Career Scientists Board in 2017 upon the recommendation from the 2015 Diversity Study group.*
- iii. *Creation of Diversity & Inclusion forum and contacts in 2017 upon the recommendation from the 2015 Diversity Study group.*
- iv. *Early Career Scientists Board survey in 2018 on perceptions of collaboration members on the work environment, career plans, and recognition, and follow-up survey in 2019/2020 on the satisfaction with the appointment process. The feedback from both surveys has resulted in changes to existing policies and better documentation (and access to documentation) to inform the collaboration.*
- v. *Limited Authorship Monte-Carlo-based Publication Reflection Group 2019/2020. (See below for the outcome.)*
- vi. *Augmented amount of information about individual contributions to ATLAS in an internal database (GLANCE) visible to all members. This database also keeps track of all of the roles that ATLAS members have held.*
- vii. *Render the appointment processes for responsibility positions more transparent (more search committees, common guidelines and requirements, better documentation)*
- viii. *ATLAS reconstruction software now kept in a public repository (contributors to software can point potential employers to it).*
- ix. *Better scrutiny of the author lists of internal notes that accompany publications (to highlight those who contributed). The actual contributions of the authors are also better detailed in the internal notes.*
- x. *Creation of Outstanding Achievements Awards (since 2014) and PhD Thesis Awards (since 2010).*
- xi. *Review of the conference talk allocation process in 2019/2020 with the creation of a hybrid conference talk allocation process that recognises the contributions of individuals while at the same time giving them more say in which conferences where they give talks. (More details below.)*
- xii. *Review of the analysis/publication process (ongoing 2020). (See below.)*

5. What does your collaboration think about the conclusions of the [ECFA report](#)?

a. *Answer: ATLAS Management read the survey report with great interest. It was particularly concerned with the outcome of some of the questions related to the satisfaction of ATLAS members when it comes to the allocation of conference*

talks. This launched a year-long review/discussion to improve talk allocation. (See below for details.) Other points that were noted and still require more follow up within ATLAS were the dissatisfaction with the lack of opportunities for ATLAS colleagues to show their creativity and innovation in venues outside of the collaborative structure (such as at conferences) and the difficulty with providing sufficient information so that the non-HEP community can assess the work and contributions of colleagues, i.e. put in place better mechanisms to explain to our colleagues outside the field what it means to be a convener, to be on an author list with thousands of names, etc...

6. Were some important issues perhaps not addressed?
 - a. *Answer: There are always issues that remain to be addressed... For e.g. the Early Career Scientists Board has spearheaded issues on the transparency of the appointment process in ATLAS. They created an ATLAS-wide survey, whose outcome was that while it seems that there was reasonable satisfaction with the transparency of elected positions (where documents describing the process exist and the ultimate choices are made through elections), this was not always the case with positions such as subgroup convenerships and analysis team contacts where the decisions are taken by individuals. **This is one area that the ATLAS Collaboration is determined to further improve.***

7. Which system do you use for authorlists (alphabetical, opt-in, opt-out, other)? Is it generally appreciated?
 - a. *Answer: Publishing scientific results using ATLAS data requires a long, collaborative chain of human endeavour involving the construction, installation, and calibration of detectors; the software and computing algorithms required to reconstruct the information; the intellectual input to collect, interpret, and coherently present the data; the creation of simulated events used to compare measurements to theory; and the crafting of scientific articles. As a result, all ATLAS members are considered to be equal shareholders of the data and the full ATLAS authorship list is included in alphabetical order on all our publications and include the entire ATLAS Collaboration. The internal notes supporting the publications also have alphabetical author lists. The detector systems and other technical areas can, if the content of their papers meet certain criteria related to the use of collaboration data, tools, and materials, have limited authorship publications. The idea of changing the author list system for publications is raised periodically in ATLAS (see for e.g. the LAMP discussion below). Though a full spectrum of opinions exists in such a large collaboration, the current system is generally appreciated. In no case would ATLAS, however, want to abandon alphabetical ordering of authors, which ATLAS considers to be a great strength of, and asset to our community and projects.*
 - b. *ATLAS often reflects on how to make the scientific contributions of individuals within ATLAS visible outside of ATLAS. The ATLAS publication policy currently does not allow ATLAS data or MC to be used in limited-authorship publications. A concern with limited-authorship publications is that often only the last step of the*

analysis process gets recognised, leading to the lack of recognition of the work on the underlying infrastructure and intermediate steps necessary to make the analysis results possible. In 2019, ATLAS set up the Limited-Authorship MC-based Publications (LAMP) Reflection Group whose charge was to review the case, conditions, and implications for allowing ATLAS members to publish limited-authorship technical papers that use internal MC and analysis tools. Some points reviewed were:

- i. the benefit to ATLAS of developing new technical or performance methods outside of the ATLAS collaborative structure rather than inside of it;*
- ii. the impact of LAMPs on the ATLAS collaborative process, on the use of collaboration resources and personnel, and on collaboration with non-ATLAS scientists;*
- iii. the value of such publications on career progression and the ramifications on the recruitment and retention of early career scientists;*
- iv. the value of such publications on increasing the desirability to contribute to technical and performance areas in ATLAS.*

Over a four-month period, LAMP Reflection Group reflected on such topics and in particular, the group looked into the possibility to use LAMPs as a way to encourage members to develop their ideas within ATLAS and enhance technical involvement in areas important to the success of ATLAS. Some of the thoughts and concerns that came out of the exercise included:

- i. Experimental particle physics relies on an excellent apparatus as well as accurately understood and calibrated data. This requires long-term commitment and (sometimes tedious) data-driven analyses. LAMPs may lead to a focus on short-term tool developments rather than investment into delicate calibration work. This is neither in the interest of the collaboration nor of the individuals aspiring to a career as experimental physicists.*
- ii. Deciding on what types of work could result in a LAMP could be a potential source of discord and introduce a significant level of disruption.*
- iii. Though LAMPs could increase the recognition of the work done in areas of strategic importance to ATLAS, the decisions on the composition of the LAMP author lists would disrupt the collaborative spirit within that activity.*

The recommendation of the LAMP Reflection Group was that the implementation of a LAMP policy had the potential to negatively impact the ATLAS collaborative spirit. It would also likely not encourage new human resources in the critical non-physics-analysis activity areas essential to the ATLAS research enterprise (e.g. detector calibration etc...).

8. Which system do you use for assigning conference talks? How are talks prepared within the collaboration? Do people feel there is enough freedom to determine the contents of their talk?
 - a. *Answer: The current allocation of conference talks in ATLAS uses a ranking system (so-called SCAB rank) of the candidates based on their contributions to ATLAS, nominations from Project Leaders, Activity Coordinators, and the members' Institute Representative, and the time since their most recent*

conference talk (weighted by the importance of the talk and of the conference). As a result of the ECFA survey, ATLAS launched a study to evaluate the possibility to implement a volunteering component to the talk allocation. This group proposed and implemented (as of September 1, 2020) a more participatory speaker-selection process for conferences, one that merges the current procedure (where speakers are selected by the Speakers Committee) with a volunteering system (where members can volunteer for desired talk topics at specific conferences). The lists of selected and volunteer candidates are merged and sorted according to their SCAB rank, resulting in a shortlist of candidate speakers for a given talk. ATLAS feels that this system allows for more freedom for people to choose which conferences they wish to give a talk at, while at the same time still recognising the contributions of individuals to ATLAS (i.e. talk allocation still remains a recognition tool).

- b. When it comes to talk content, there is a delicate balance between freedom of the speaker to select topics and recognition of significant recent work made by colleagues that should be presented at conferences in a timely fashion. For talks with submitted abstracts, the content of the talks is more or less fixed, though the abstracts are usually formulated to be flexible enough to add new related results not available at the time of the abstract creation. Some talks have no abstract (e.g. when conferences reach out to ATLAS and invite a talk). In this case, the contents are based on the request of the conference; however, such talks have typically more flexibility as to the contents (especially for “Highlights” talks). In all cases, the speakers usually are encouraged to discuss mainly the most recent results. **This is an area where ATLAS should gather feedback on how to improve as this question of satisfaction at having enough freedom in conference talks is not one that we have explicitly asked.**
9. What do you think of making analysis notes (limited authorlist of analysis proponents) public? What are the reasons pro and con to do that? Would you object to a system where statistics can be collected for the proponents of such ana-notes? Would it be useful to introduce a JENAS wide system?
 - a. *Answer: ATLAS is currently not in favour of making internal analysis notes public. Please note that the contributions of the analysis team of a publication are listed in the internal support note that accompanies the publication. So this information exists and is available to all ATLAS members and so can be used when writing letters of reference or CVs. However, the way the question above is formulated (i.e. focusing on analysis notes) appears to prioritise physics-analysis work over the many other important developments within a collaboration that are required to make an experiment work. It is dangerous to focus the recognition of individuals mainly on analysis work, which is only part of the skill set needed to create a successful experimental physicist, and — on the longer term — may lead to loss of hardware, software and operations skills and experts; it only addresses part of the problem (and in some ways, the easier part of the problem, since analyses can lead to highly recognisable scientific publications, the details of which can be elaborated in the letters of reference when applying for academic positions).*

However, the spirit of the question, which is the recognition of internal work related to any area of endeavour within a collaboration (physics, performance, detector, computing, etc...) is a relevant and important issue.

- b. It would be challenging to apply JENAS-wide guidelines to the collaborations. Each collaboration, both large and small, has a unique history and sets its own priorities when it comes to publication policies. Externally enforcing standards without understanding the individual cultures, constraints, and other mitigation strategies already in place within the collaboration to recognise the contribution of individuals could be harmful to the collaborative process of the experiments. The trap is that it is often easiest to recognise and collect statistics on the final elements of the long collaborative chain rather than the earlier but equally critical elements. A related issue is the danger of recognising physics-analysis results (where documentation/information usually exists and is easy to harvest) over technical contributions to the experiment (where the metric is less straightforward). It could create a two-tiered system of physicists within a collaboration.*

10. What is your opinion of prizes and awards? Do you differentiate between awards (a prize for “the best”) and “rewards” (a prize for “an achievement” – no selection).

- a. Answer: ATLAS recognises outstanding work and has two types of regular awards/prizes plus other spontaneous opportunities.*
 - i. ATLAS PhD Thesis Award given annually to ~5-6 students. PhD theses can cover any area of ATLAS physics, including detector development, operations, software and performance studies, and physics analysis.*
 - ii. ATLAS Outstanding Achievement Award given every ~1-2 years to individuals or small teams as a recognition of excellent contributions made to the collaboration (some emphasis is placed on colleagues early in their careers). Nominations come from across the collaboration, in areas such as technical coordination, detector systems, as well as activity areas including upgrade, combined performance and outreach. Such an award is not for contributions to the area of physics analysis.*
 - iii. ATLAS sometimes creates spontaneous challenges to award people for a particular outstanding achievement or idea.*

11. One way to recognize achievement is appointing people to responsible positions (board member, conveners, reviewer etc.). How does that work in practice in your collaboration? Does it have a political aspect e.g. equal share between countries?

- a. Answer: List of types of appointments:*
 - i. Elected positions such as Activity Coordinators:*
 - 1. ATLAS-wide call for nominations -> search committee to evaluate feedback and create shortlist -> election by Collaboration Board*
 - ii. Detector Project Leaders and corresponding (subgroup) conveners within these structures are elected/appointed by the relevant communities.*
 - iii. Appointments of Physics Analysis/Combined Performance conveners*
 - 1. Collaboration-wide call for nominations -> search committee including members at large (appointed by the Collaboration-Board chair) -> appointment by the search committee.*

- iv. *Appointment of Physics Analysis/Combined Performance subgroup conveners*
 - 1. *Appointed by the Physics Coordinators in consultation with ATLAS Management after call for nominations to concerned communities.*
 - v. *Appointment of Analysis Contacts/Paper Contacts/editors*
 - 1. *Appointed by the working group conveners in consultation with the relevant subgroup conveners. The conveners should actively request input from the analysis team.*
 - vi. *Editorial Board members are appointed by the Publications Committee in consultation with the Physics Coordinators and ATLAS Management. Calls for nominations go out periodically to the Collaboration and in particular to the Institute Representatives to gather the names.*
- b. *The level to which demographic considerations are taken into account depends on the type of appointment. For the appointment of group conveners and for the creation of the shortlists for the elections of Activity Coordinators (or other elected positions), some attention is paid to demographic diversity of the shortlist, though excellence of the candidate is always the primary criterion. Demographic considerations are less addressed at the subgroup convener level since many such positions exist and so it is difficult to keep track of the demographic correlations between the appointments. **This is one place where the ATLAS Collaboration wishes to improve.***
12. Analysis reviews are sometimes lengthy procedures that take longer than the job contract of individuals doing the analysis, such that papers are not ready to be published or that results unblinded before graduation or end of contract. Is this an issue? If so, is there a mechanism to deal with that?
- a. *Answer: ATLAS is constantly reviewing the analysis process with the aim to increase the efficiency with which results are brought to publication, while maintaining high scientific standards. A few possibilities exist:*
- i. *Papers can be converted into Conference Notes at an intermediate stage of the analysis. This enables results to become public prior to publication so that they can be shown at seminars or other venues used for hiring.*
 - ii. *Smaller publications (rather than larger compendia including many topics/analyses) are now actively encouraged, especially in technical areas, to allow for a quicker publication.*
 - iii. *Students are permitted to include their own unpublished results in their theses and also to show these results at national conferences or schools.*
 - iv. *Members who leave ATLAS remain on the author list for one year and can still be invited for up to 6 months after departure by the ATLAS Speakers Committee to give a talk at a conference.*
 - v. *The ATLAS analysis/publication process is currently under review. ATLAS recognises that its analysis-approval workflow as well as the crafting of publications can be a long and sometimes painful process which can extend publication beyond a student's or postdoc's engagement in ATLAS. The sometimes lengthy approval process resulting for e.g. when a technical*

method different than “usual” is proposed in a publication may discourage work in innovative methods and curb creativity.

13. Do you have specific policies or practices to promote the work of juniors?

a. Answer: *Some ATLAS implementations:*

- i. *Poster sessions at ATLAS Collaboration Weeks highlight any type of work (physics analysis and technical), including not-yet published studies.*
- ii. *More recently (since COVID), a dedicated session in the ATLAS Weeks for short talks given by early-career scientists.*
- iii. *Certain talks at conferences can only be given by early-career scientists, typically students who have never given a conference talk before and who have demonstrated contributions to ATLAS.*
- iv. *Technical talks at conferences related to the performance of the detector don't count against the amount of time that colleagues have to wait between receiving invitations by the ATLAS Speakers Committee. It enables collaborators working on performance-related aspects (usually students/early career scientists) to improve their visibility and talk record.*

14. Do you have something in place for recognition for technical issues? What do you put in place to help the recognition of individuals by members external of the collaboration (for instance for their career advancement). Is there a way for an external referee to assess what a convenership entails ?

a. Answer: *A few mechanisms exist:*

- i. *ATLAS Outstanding Achievement Awards specifically targets recognition of the accomplishment of individuals/small teams in technical areas.*
- ii. *All ATLAS reconstruction software is in a public repository so that contributors can point out their work to potential employers.*
- iii. *There is an appointments/accomplishments database from which a member can draw upon when preparing their CV or other members can use for writing letters of reference.*
- iv. *The conference speaker selection system has a ranking (see SCAB rank above) that contains a component related to the technical contributions of ATLAS members. Members must do a minimum amount of technical contributions over the past three years in order to be allocated a talk at a conference and the more technical work they do, the better is their ranking, thereby increasing their chances of being invited to give a talk.*
- v. *Upon completion of their authorship qualification (which is always a technical/service task), new ATLAS members are recognised with a credit for work done that goes towards improving their SCAB ranking.*
- vi. ***ATLAS recognises that understanding what a convenership entails for an external referee is still not well addressed and could be improved.*** *Some aspects, though, should be covered by the letters of reference that members receive when then apply for academic positions. However, non-academic positions sometimes don't use letters of reference and so it becomes more challenging to recognise the work.*

- vii. *Sometimes technical work (e.g. hardware, software) performed by colleagues does not result in a concrete implementation within ATLAS (for e.g. R&D into two different ways to accomplish the same project, of which only one methodology is ultimately chosen by the collaboration, or technical work which fails to come to a successful conclusion due to various reasons). Work is done but recognition for this work is difficult to attribute because it doesn't result in an end product.*

15. Are specific measures in place to include an individual's opinion in decision making processes?

a. *Answer: A few mechanisms exist:*

- i. *For the decisions related to the appointment/election of positions in ATLAS, one of the pillars for feedback is through the nomination of candidates. There are ATLAS-wide calls for nominations for all top-level positions in ATLAS (Spokesperson, Collaboration-Board chair, Activity Coordinators) and calls for nominations within the specific communities for the election of Project Leaders. ATLAS members are also chosen by the Collaboration Board chair to be "members at large" on selection committees for these appointments.*
- ii. *The ATLAS Week (three times per year) has a Collaboration Matters session which often has either a brainstorming session on certain topics, or topical discussions related to upcoming policy decisions.*
- iii. *Regular discussions between the Early Career Scientists Board, ATLAS Management, and the Collaboration Board chair.*
- iv. *Since the start of COVID, there are "open mic" sessions every few weeks at the ATLAS Weekly Meeting where people are free to express their opinions in an open forum.*
- v. *There are various coordination bodies that encompass the group and subgroup conveners of the activity areas of ATLAS. Similarly, activity areas/detector projects have steering groups.*
- vi. *For spontaneous feedback on issues, there is also an online "idea box".*