



MEMBERSHIP POLICY

ATHENA Collaboration

July 1st, 2021

Membership in the ATHENA Collaboration shall be by Institution with each Institution expected to meet institutional requirements as defined and maintained by the Institutional Board (IB), typically requiring two or more collaborators at the Ph.D. level or equivalent and making a well identifiable contribution to the experiment.

The Institutional Board shall maintain a list of institutional responsibilities that shall include but not be limited to shift duties and service work. Institutional responsibilities shall be set in proportion to the number of collaborators from each Institution, where appropriate.

All members of the Collaboration Institutions, including graduate students, engineers, and other technically-oriented persons, that made substantial contributions to this Collaboration over a period of at least six months are eligible to become collaborators. Each Institution shall submit a brief yearly report of the names and contributions of all collaborators to the IB. The mechanism of this reporting shall be defined and maintained by the Institutional Board and be used to determine the number of Collaborators in Good Standing (CGS) from each Institution. Individuals who are not in the employ of a particular member Institution may be included in the list so long as a significant contribution of each such individual can be identified. All member Institutions shall have one collaborator as their Representative on the Institutional Board. Each Representative shall have their vote weighted by $1 + \text{int}(\text{CGS}/10)$, not to exceed three votes.

Institutions with IB membership at the time of adopting this Charter shall form the ATHENA Collaboration. New Institutions can petition for membership through the Spokesperson. Upon recommendation for consideration from the Spokesperson, each such Institution shall present to the Institutional Board a plan for meeting their responsibilities and vision for future contributions to the ATHENA program. Acceptance to membership of any new Institution requires $2/3$ of the total weighted votes cast by the IB, with a minimum of half of all member Institutions having voted.

Institutions may be retired from ATHENA Collaboration by their own request at any time. An Institution may be recommended for suspension due to unfulfilled obligations, non-

responsiveness, or other concerns deemed sufficient by the Spokesperson, IB Chair, or the Executive Board. Under the case of recommendation for suspension, the Institution shall be notified by the IB chair a minimum of three months prior to a hearing held by the Institutional Board. The Institution would be granted an opportunity to present during the IB hearing. Decisions on suspension shall require $2/3$ of the total weighted votes cast, with a minimum of half of all Institutions having voted.



INSTITUTIONAL BOARD POLICY

ATHENA Collaboration

July 1st, 2021

As established by the ATHENA Collaboration charter, the ATHENA Institutional Board (IB) is the governing body of the experiment. The IB makes all major policy decisions within the Collaboration; examples include organization and governance of the Collaboration, adoption of Charter and Collaboration Policies and amendments to that, and admission of new member Institutions to the Collaboration. The Institutional Board is responsible for the election of the Spokesperson and ratification of the management plan put forward by the elected Spokesperson.

The ATHENA Institutional Board is composed of one individual Representative from each participating member Institution. Each member Institution selects its Representative. The Spokesperson and Deputy Spokesperson are *ex-officio* members of the Institutional Board. The IB may add extra members.

In addition, early-career members of the Collaboration are represented on the IB by up to three at-large Early-career members, at least one of whom should be a graduate student. Each early-career member will have one vote in the IB decisions. Early-career members of the Collaboration comprise all graduate students and those with no more than five years post-PhD experience (not counting career interruptions). Candidates for at-large positions can be either self-nominated or nominated by any collaborator after a call for nominations by the Election Committee. Early-career members of the Collaboration elect the at-large representatives. Elections should take place at least every two years. The usual term for Early-career IB Representatives is two years.

The Chairperson and the Vice Chairperson of the Institutional Board are elected by a vote of the IB from among its ranks as prescribed by the ATHENA Election Policy. The election of the new IB leadership takes place annually, nominally aligned with a regular IB meeting.

The IB meetings are nominally held twice a year, usually during collaboration meetings. Online meetings and remote participation in the IB meetings are permitted. IB meetings are guided by the Robert's Rules of Order. The IB Chairperson shall appoint a parliamentarian to serve as the official source of information on procedures based on Robert's Rules of Order. The draft agenda

for the IB meeting and any associated documentation should be made available to IB representatives at least two weeks before the meeting so that members have the opportunity to add items to the agenda. Those issues that require votes should be clearly stated on the agenda. At the discretion of the IB Chair, additional meetings can be called with at least two weeks' notice. Any IB representative unable to attend a given meeting can name a substitute from the same Institution or group. The IB meetings may include a closed session without the Spokesperson and Deputy Spokesperson present. The IB Chairperson shall arrange for the minutes of meetings to be taken and shared with the IB within two weeks of the meeting date. The IB Chairperson should provide a summary report for each IB meeting to the Collaboration.

The Institutional Board makes decisions by votes of IB representatives. A simple majority of all IB Representatives who have voted is required for all routine decisions, except Charter modification, elections, admission of new Institutions, and the suspension of current Institutions or individual collaborators. A secret ballot can be called for by any IB representative. All voting outcomes are summarized as part of the written IB minutes. The ATHENA Election Policy specifies the vote thresholds and participation requirements for all election issues. The Membership Policy prescribes voting requirements and details for admitting or suspending an Institution. Weighted votes of all Institutional Representatives are considered for the vote outcome, with vote weighting stipulated by the ATHENA Membership Policy. Results of all votes must be announced within one week of the voting.



SPOKESPERSON POLICY

ATHENA Collaboration

July 1st, 2021

The Spokesperson is the principal representative of the ATHENA in all matters pertaining to the Collaboration. The Spokesperson is the final entity responsible for publishing scientific results in a timely and reasonable fashion and organizing collaboration meetings. The Spokesperson is the Chair of the Executive Board. The Spokesperson serves at the discretion of the Institutional Board and with the advice of the Executive Board.

The ATHENA Collaboration is led by a team of a Spokesperson and a Deputy Spokesperson. Within one month following the election, the elected team shall present to the Institutional Board for review and ratification of their plan to carry out their designated duties and the way they intend to interact with the Institutional Board, members of the Collaboration, BNL, and outside agencies. Proposed changes in their plan during the term of office shall be presented to the Institutional Board prior to implementation for their review and ratification within a specified time.

The Institutional Board elects a team: a Spokesperson and a Deputy Spokesperson, to serve a nominal term of 2 years. Any individual can serve a maximum of up to three terms. The Spokesperson and Deputy Spokesperson team must maintain a significant presence at BNL during their tenure. The Spokesperson and the Deputy Spokesperson must be from different Institutions. The Institutional Board can decide to terminate the term of office for the Spokesperson and Deputy Spokesperson and request new elections. Such a termination requires an affirmative vote of at least 2/3 of the Institutional Board members.

Should the Spokesperson position become vacant during the nominal term, an interim election of a new Spokesperson shall occur at the next timely meeting of the Institutional Board. The Deputy Spokesperson shall serve as the Acting Spokesperson until a new Spokesperson is elected and is available to take office. Should the position of Deputy Spokesperson become vacant during the nominal term, the Spokesperson may select a new deputy Spokesperson and submit a revised management plan to IB for approval.

The Spokesperson and the Deputy Spokespersons shall not represent the interest of any one country, Member Institute, or specific entity within ATHENA.



EXECUTIVE BOARD POLICY

ATHENA Collaboration

July 1st, 2021

The ATHENA Collaboration establishes an Executive Board that advises the Spokesperson on:

- experiment construction, operations, maintenance, and upgrades,
- data management, software, and computing,
- working groups, committees, and their coordination,
- inclusion, diversity, equity, and accountability,
- any other scientific, technical, or managerial matters pertaining to the Collaboration.

The Executive Board meets once a month or more frequently as needed. The Spokesperson serves as Chair of the Executive Board. The Executive Board may advise the Spokesperson on any Collaboration matter. An agenda item will be added to the Executive Board meeting agenda if so requested by at least two of its members. The Executive Board may choose to advise on any matter by means of a vote if so requested by at least two of its members. The Chair of the Executive Board or designated representative reports on the activities of the Executive Board during general meetings of the Collaboration and of the Institutional Board.

The Executive Board consists of collaboration members distinguished by their ability, expertise, judgment, and commitment to the experiment and the Collaboration. The Executive Board must have at least one member for each of the functional areas identified above. The Executive Board members reflect the composition of the collaboration membership; at least three members are from the Collaboration at large, and at least one member is within five career years of obtaining their Ph.D. (i.e., not counting career interruptions). These membership classifications may have overlap, and members of the Executive Board can be members of the Institutional Board. The Deputy Spokesperson and Chair of the Institutional Board serve in an ex-officio capacity on the Executive Board. There are no explicit term limits for regular Executive Board members except the limit associated with the Spokesperson and Deputy Spokesperson roles. The detailed composition of the Executive Board and any revisions are proposed by the Spokesperson as part of the written management structure and plan for ratification by the Institutional Board.

The Executive Board forms working groups, open to all collaborators, and appoint working group (co-)conveners with input from the active working group members. The terms of these

appointments are not to exceed two years and have the possibility of renewal. The working groups report to the Collaboration as a whole.

The Executive Board may appoint task-forces or ad-hoc committees other than the committees established directly by this Charter or any associated Policy when additional expertise is required for collaboration matters. Such ad-hoc committees or task forces report to the Executive Board, and their charges are typically not transcend the Spokesperson term.

Examples – the Spokesperson may propose a subsystems coordinator, a simulations coordinator, an analysis coordinator, and/or other coordinators as members of the Executive Board for ratification by the Institutional Board. These coordinators may serve as members of the Executive Board during the terms of multiple Spokespersons, provided the respective Spokespersons and Institutional Board agree. The Spokesperson may at any time propose a reorganization of the Executive Board for ratification by the Institutional Board. The Executive Board forms working groups for different detector subsystems or subsystem functions and/or different areas of scientific interest within the Collaboration. It appoints (co)conveners for each of these working groups with input from the active members of the respective working groups. The Executive Board may renew the term of a working group (co-)convener or let it expire and appoint another (co-)convener with input from the active members of the working group. The Executive Board may appoint an organizing committee for an upcoming collaboration meeting, a review committee to aid with a technical decision, a task force to develop a software strategy to meet a collaboration challenge, or several other classes of committees and task forces. However, the Executive Board may not appoint a Charter or Election committee since this is the prerogative of the Institutional Board per this Charter and its associated Policies.



ELECTION POLICY

ATHENA Collaboration

July 1st, 2021

ELECTION POLICY

This Policy defines the voting rules for the Institutional Board and establishes an Election Committee to assist the Institutional Board (IB) in elections and general voting matters.

ATHENA Election Committee: an ad-hoc Election Committee consisting of at least 3 Institutional Board members nominated by the Institutional Board is appointed by the Institutional Board Chair. The Election Committee is established to assist the Institutional Board in major voting matters, solicit nominations for elected positions, organize the voting process and report to the Institutional Board on vote outcomes.

Voting: All Institutional Board decisions are made through a vote. Ballots for routine decisions and Charter modifications are open unless a secret ballot is requested by any IB representative (member). All other ballots are secret. Votes on Charter or Policy modification, elections, admission of new Institutions, suspension of current Institutions or individual collaborators must be announced two weeks ahead of time and include specific details on how the voting will occur.

Electronic voting on all issues is allowed. Proxies are allowed for non-election in-person votes. An absent IB representative may appoint another collaborator as a proxy by so notifying the IB Chair in advance of the voting. An absent representative can specify how his/her vote is to be cast or leave this decision to the collaborator appointed as proxy. Absent (physically or through remote connection means) IB representatives who do not appoint proxies are deemed to have abstained from the vote and are not counted as part of any quorum.

Institutional Board Chair Election: The election of the new IB leadership takes place annually, nominally aligned with a regular IB meeting. The newly elected IB leader serves the first year of the two-year term as the Vice-chair of the IB and then as the IB Chair for the second year of their term to provide continuity of the leadership. After the first election, the IB Chair serves the first year without Vice-chair, and the second year with the then elected Vice-Chair.

The Election Committee solicits nominations from the IB, actively seek candidates as needed, and oversee the election. They solicit candidate statements, share them with the IB, and/or organize meetings with nominees who agreed to stand for the election at least two weeks ahead of

the vote. Elections of the IB (vice) Chair must be announced publicly to the entire Collaboration at least two weeks before the vote.

The IB (vice) Chair is elected by a majority of the weighted votes cast in the election. A minimum of 2/3 of all IB representatives should participate in an election vote for a valid election. Any IB representative can serve at most two consecutive terms (4 years in a row) in the IB Chair line.

Spokesperson Election: The election of the new Collaboration leadership team consisting of a Spokesperson and Deputy Spokesperson takes place every two years, nominally aligned with a regular IB meeting. The Election Committee solicits nominations for the Spokesperson from the Collaboration as a whole, actively seek candidates as needed, and oversees the election. They request candidate statements and written management plans, share these with the IB, and organize open meeting(s) with nominees who agreed to stand for the election at least two weeks ahead of the vote. Each Spokesperson candidate should select a Deputy Spokesperson ahead of the election to run together in the election.

Elections of the Spokesperson must be announced publicly to the entire Collaboration at least two weeks before the vote. It is expected that each IB representative will proactively engage their group in a discussion of Spokesperson candidates and will solicit and consider their group members' input before casting a vote. A candidate for Spokesperson can be elected in the first round of voting only if he or she receives more than 50% of all weighted votes cast, including abstention votes. If no candidate obtains this absolute majority, runoff rounds are conducted for the top two vote-getters until someone secures more than 50% of the weighted votes cast, not counting abstentions. A minimum of 2/3 of IB representatives must vote in the Spokesperson(s) election for a valid vote.

Admission/suspension of Institutions: The procedure and the voting requirements for admission of new Institutions and the suspension of an individual or Institutional membership are described in the Charter and its Membership Policy. The Election Committee prepares and oversee the ballots when the admission/suspension votes take place.

Charter/ Policy modifications: Any IB representative can propose amendments for the Collaboration Charter and/or accompanying Policies. Such a proposal should be made in writing to the IB as a whole at least one week before any IB meeting and discussed (proposed for discussion) at the regular IB meeting. For a motion with the general support of the IB, the IB Chair shall assemble a charter committee and charge the charter committee to draft the modification according to the proposal. The draft of the changes should be shared with the IB for discussion and additional input at least one month in advance of the next scheduled IB meeting. A call for a vote and a second are required to proceed with the adoption vote.

The voting requirements for Charter and Policy modifications are prescribed in the Charter. The Election Committee prepares and oversees the ballots when policy modification votes take place.



PUBLICATION POLICY

ATHENA Collaboration

July 1st, 2021

This Policy defines the following aspects of ATHENA Collaboration functions:

- Physics Analysis Procedures and release results
- Editorial Board
- Conference Committee
- Rules for Presentations and proceedings
- Rules for publications
- Authorships
- Rules for other types of publication

Physics Analysis Procedures and Result Release: All data from all parts of the ATHENA detector are available to all members of the ATHENA Collaboration for analysis. The groups responsible for each subsystem must ensure that the necessary analysis tools, algorithms, codes, and correction parameters for that subsystem are available, documented, and kept up-to-date.

Each analysis has to be carried out within an ATHENA Working Group. All results should be approved by the conveners (designated by the Executive Board) of the concerned Working Group. Two types of results are considered here: official preliminary results or projections that can be shown publicly in conferences under the responsibility of the Conference Committee or final results available for publication. Only one preliminary result can be approved for a given analysis before the final result is submitted for publication. The analysis procedures and details of statistical errors and systematic uncertainties evaluation must be documented in an Analysis Note, for both final and preliminary results. All the macros, codes (including calibrations) that are necessary to reanalyze the data and fully reproduce the results (even preliminary) have to be frozen in some repository accessible to the Collaboration and all the documents have to be archived. Once the final result is approved, a Paper Preparation Team is proposed by the conveners of the concerned Working Group for approval by the Editorial Board. This team should include members of the relevant working group, particularly those most closely involved in generating the results that form the basis of the paper. One member of the Paper Preparation Team is tasked with overseeing the paper's format and syntax. The article has to receive the approval of the Editorial Board and the Spokesperson before submission. In the event of persistent disagreement with respect to the content of the paper, the final decision is taken by the Spokesperson after careful consideration of

input from all involved parties. The paper is submitted to the journal by the Spokesperson or their designee.

Editorial Board: An Editorial Board is formed to facilitate the drafting and submission of papers by the ATHENA collaboration. This Board consists of at least three collaboration members selected by the Executive Board and approved by the Institutional Board. Editorial Board appointments are made for two years with a maximum of two consecutive terms for each individual. The Editorial Board selects a chair from its members.

The Editorial Board ensures that drafting teams are formed for the initial writing of papers, ensure that the Collaboration is given the opportunity to review and comment on draft publications, and oversee the submission of papers to the appropriate journal, keeping track of the process through to publication. The Editorial Board shall oversee the bookkeeping and archiving of all publications, contributions to proceedings, internal notes, Ph.D. theses, and other relevant reports concerning the ATHENA Collaboration.

Conference Committee: The Conference Committee is responsible for overseeing all oral and poster presentations given at scientific conferences and workshops on behalf of the Collaboration. Their duties include the selection of presenters, with the goal of equitable distribution of presentations across the Collaboration and internal quality assurance. The Conference Committee shall also oversee the bookkeeping and the archiving of all oral and poster presentations given at scientific conferences and workshops on behalf of the Collaboration.

This Committee consists of at least three collaboration members selected by the Executive Board and approved by the Institutional Board. Conference Committee members could serve for terms of two years for a maximum of two consecutive terms. The Conference Committee selects a chair from its members.

Rules for Presentations and Proceedings: The Conference Committee oversees the equitable distribution of speaking opportunities to collaboration members. Speakers for invited presentations on behalf of ATHENA Collaboration are solicited from the Collaboration. The

Conference Committee should particularly ensure that early career collaborators are given appropriate opportunities for invited talks. In some cases, individual Collaboration members may be directly invited to give a talk about ATHENA. In this case, the recipient of the invitation should inform the Conference Committee Chair. The Conference Committee is to also make sure that contributed talks at conferences are coordinated among speakers to avoid duplication and encourage a breadth of topics at larger conferences.

All talks may only include results approved by the ATHENA collaboration. All published results may be included in a presentation. Preliminary results may be shown, but only for those approved as described in Section 1 above. Draft presentations should be available for the ATHENA Collaboration one week before the talk is to be presented. The Conference Committee may require talk rehearsals by the presenters and is responsible for the presentations' quality assurance on behalf of the Collaboration.

The speakers prepare conference Proceedings if required/desired and submit the draft to the Collaboration for comments and to the Editorial Board for review at least two weeks before the submission deadline. Proceedings should be signed by the speaker and include the text “on behalf of the ATHENA Collaboration.” Proceedings may include all previously published results and official preliminary results. The Editorial Board arranges for the submission to be reviewed by at least one collaboration member who is considered a subject matter expert in the relevant topic. The proceedings should be approved by the Editorial Board for submission.

Rules for Publications: when an appropriate Working Group approves a result, the paper preparation process can begin following this procedure:

- a) A Paper Preparation Team is proposed by the Convener of the Working Group for approval by the Editorial Board. This team should include members of the relevant working group, particularly those most closely involved in generating the results that form the basis of the paper. One member of the Paper Preparation Team is tasked with overseeing the format (including figures) and the syntax of the paper.

- b) The initial draft is prepared and submitted to the Editorial Board. The Board arranges for an initial paper review (either by the Board itself or others from the Collaboration) by a team of at least three readers.
- c) The Paper Preparation Team addresses any feedback from the readers and resubmit the revised draft to the Editorial Board.
- d) The Editorial Board makes the draft available to the full Collaboration for comments for at least two weeks.
- e) The Paper Preparation Team addresses feedback from the Collaboration (in writing and the response made available to the Collaboration).
- f) The paper is submitted once the Editorial Board has determined that all significant issues resulting from the Collaboration comments have been addressed. Agreement from the Spokesperson is also required at this stage. In the event of disagreement with respect to the content of the paper, the final decision is taken by the Spokesperson.
- g) The Spokesperson or their designee coordinate the submission to the journal and the response to journal referee reports.

All the documents, macros, codes (including calibration) that are necessary to reanalyze the data and fully reproduce the results have to be archived.

Authorship: The Spokesperson, the Executive Board, and the Institutional Board Chairperson are ultimately responsible for maintaining the ATHENA authorship list, updating the list of authors regularly, and keeping track of the lists.

The Institutional Board Representatives are responsible for supplying a list of collaborator names affiliated with their Institution, noting the arrival time, following the ATHENA Membership Policy. Each collaborator must be registered in the ATHENA Collaboration Database with the following status: Physicist, Postdoc, Senior Engineer, or Ph.D. Student. All Collaborators in Good Standing, determined by the Institutional Board per Membership Policy, have authorship rights for ATHENA publications. The qualification period ends when leaving the

ATHENA Collaboration. Collaborators keep authorship rights for 12 months after their departure date.

The author list is determined when the paper is first circulated to the full Collaboration (item (d) in the section, "Rules for publications"). All authorship-eligible collaboration members must positively agree to be listed as an author on each publication – such agreement shall be obtained by the Editorial Board by electronic means (email, poll, etc.). Those who do not respond are not included in the final author list. Authors are listed in alphabetical order under the Institution to which they belong.

Exception requests to be on the author list for one specific publication can be made by:

- former collaborators who left ATHENA more than 12 months but have made significant contributions to this publication;
- any non-PhD student who made significant contributions to this publication;
- non-members who made significant contributions to this publication.

Each exception request must be approved by the Editorial Board and by the Spokesperson. Additionally, physicists or engineers involved in detector construction who are no longer collaborators at the start of experimental operations are eligible to petition to be listed as authors on publications from the first two years of running.

Rules for Other Types of Publications or Presentations: Technical publications can be made either as a full ATHENA Collaboration paper (i.e. including the full collaboration in the list of authors) or as a smaller-group, few-authors paper. Technical publications generated on behalf of the ATHENA collaboration should follow the usual Rules for Publication as established above. Few-author publications need to be circulated to the entire ATHENA Collaboration for comments and secure approval by the Editorial Board and Spokesperson.

Reviews or papers, including a limited number of ATHENA authors, can only use published results. Additional analysis details not included in the official publication (e.g., detailed

kinematics, radiative or other corrections) may be included in such a paper with the approval of the Editorial Board and the Spokesperson.

Results presented in a student thesis are not necessarily published ATHENA results. Results obtained by the student must be clearly labelled to note that they are not official ATHENA results with the comment "this thesis" in the figure. The text must be clear in order to prevent such results being taken from a publicly available thesis and considered erroneously as results of the ATHENA Collaboration.

Progress reports to funding agencies, review committees, reports of students within Institutions, and can use supplemental, unreleased figures illustrating the analysis status. Such reports should clearly indicate that these are for internal consumption only. Some corrections may not yet have been applied and from which quantitative physics conclusions cannot be drawn. Such supplemental figures must not be made publicly accessible, e.g., the slides cannot be made accessible on a web page.

Seminars not covered by the above cases should only show approved ATHENA results. However, additional figures that use ATHENA data to illustrate analysis techniques, calibrations, or corrections may be used. Such additional figures could not be used to overwrite or contradict the official ATHENA published results or to release an unapproved physics result or message.