# IceCube Collaboration Governance Document

## Revision 3.0, May 28, 2007

## Collaboration Objectives

The IceCube Collaboration (the Collaboration) is an organization of scientists who collectively participate in a research program to study high-energy neutrinos from cosmic sources. The Collaboration uses the IceCube Observatory at the NSF South Pole Amundsen-Scott station for this research program. The IceCube Observatory consists of a surface array, IceTop, and a deep ice array IceCube. The IceCube array includes the strings of the former AMANDA detector.

## Definitions

The Construction Phase of IceCube is specified as the period when activities are governed by the construction Cooperative Agreement with NSF and MoU's with Constituent institutions. The International Oversight and Finance Group functions are defined in the Project Management Plan (PMP). The Host Institution for the IceCube project is the University of Wisconsin-Madison (UW). Responsibilities are defined in the Cooperative Agreement with NSF. During the operations phase (which will co-exist with the construction phase until the detector is complete) activities will be governed by a single MOU with the host institution signed by all constituent institutions.

## Collaboration Membership

The IceCube Collaboration consists of scientists at Collaboration Constituent Institutions. The condition for membership and for institutional recognition is that the group makes a significant contribution to IceCube. Significant contributions will include a contribution to the common fund proportional to the number of Ph.D. scientists in the group as well as contributions to detector operations and data analysis. The proposed contributions, role in the scientific program, and personnel are to be detailed in the MOU.

Current members of the Collaboration as of the date of revision of this document come from the institutions listed in Appendix A. (This Appendix also lists the initial institutions of IceCube.) Any scientist or group of scientists may apply to the spokesperson of the Collaboration for membership of their institution in IceCube. Admission of new Collaboration Constituent Institutions requires approval by a two-thirds majority of the IceCube Collaboration Board of the proposed contributions, role in

the research program, and terms of the initial MOU. Scientists who join member groups at Institutions that already are members of the Collaboration will automatically be accepted as members of the Collaboration.

Membership of an individual or Institution may be revoked by the Spokesperson for just cause, e.g. actions detrimental to IceCube. A two-thirds majority concurring vote is required of the Collaboration Board.

# Collaboration Board

## 1. Functions and Responsibilities

The Collaboration Board is the policy-making entity that guides and governs the scientific activities of the Collaboration. It establishes, and as necessary amends, governance procedures and has oversight and authority over:

- science policy and goals
- membership
- data access
- publication
- representation of IceCube at topical and general conferences
- analysis teams
- education and outreach

The Collaboration Board, during the construction phase of IceCube, advises the Project Director on:

- detector operation for scientific investigations and maintenance. The Collaboration Board, through the Collaboration Spokesperson, maintains contact and communication with the Project Office during the construction phase of IceCube. It participates in the change control process as articulated in the IceCube Project Management Plan. The Collaboration Board may, through the Spokesperson, propose modifications to the change control process for consideration by the Project Office.

The Collaboration Board ratifies the Collaboration Governance document and may introduce amendments to it.

The Collaboration Board ratifies the Project Management Plan (PMP) and may suggest amendments to it.

The Collaboration Board, during the construction phase of IceCube, advises the Project Director on selection of, and consents to appointment of, Project Office staff responsible for Data Systems and Detector Commissioning. Concerns of the

Collaboration members are addressed to Collaboration Board members who, when appropriate, bring those before the Collaboration Board for its consideration.

At the request of a Board member the Board may require a detailed verbal, or written, report from the Spokesperson on any action.

# 2. Membership

Each Collaboration Constituent Institution is represented on the Collaboration Board. The number of votes per institution depends on number of Ph.D. physicists (see for the key section 6 below).

Early Career - less than five years after the Ph D - scientists in the Collaboration are represented by two additional, at-large, members chosen collectively by Early-Career Collaboration participants. The term of service is one year, renewable. Election rules for Early Career scientist are given in Appendix B. Of the two members, one is voting whereas the other is a non-voting adjunct member. Information of who is voting should be given to the spokesperson before each meeting of the Collaboration Board. During the IceCube construction phase, the P.I. of the construction grant from NSF (the IceCube P.I.) is an ex-officio member of the Collaboration Board. During the IceCube construction phase, the leads for constructing the Data Systems and for Detector Commissioning & Verification will attend the Collaboration Board meetings as ex-officio, non-voting members.

# 3. Officers

The Collaboration Board is chaired by the Collaboration Spokesperson. The spokesperson is an ex-officio, non-voting member of the Collaboration Board. The Spokesperson is elected by the Ph.D. members of the collaboration. The election procedure is as follows:

- The Spokesperson appoints two Collaboration members who serve as a nomination commission.
- Nominations are sought from the Collaboration at large. Each constituent Institution may offer one or more candidate nominees
- The nomination commission notifies each nominee that she/he has been proposed. Within two weeks each nominee shall inform the nomination commission if he/she is willing to be listed as a nominee. All who do so compose the final slate of viable nominees.
- The spokesperson is chosen by majority vote of all Ph.D. physicists in the Collaboration.
- If none of the candidates gets more than 50% of the votes in the first round the choice between the two names with the most votes is decided in a second round.

Each nominee is urged to prepare a statement that contains her/his assessment of the state of IceCube, goals and plans for action to be taken during his/her tenure as spokesperson. The text of the statement should accompany the nominee's acceptance notice to the nomination commission who will distribute it with the ballot to the Collaboration membership.

During the construction phase of IceCube, the IceCube P.I serves as co-Spokesperson. During the operations phase the Spokesperson may select a Deputy Spokesperson. The Board ratifies the choice. The Deputy (co-Spokesperson) performs the duties of the Spokesperson when necessary if the Spokesperson is unable to do so. The Deputy (co-Spokesperson) is an ex-officio, non-voting member of the Collaboration Board. If the Spokesperson or Deputy (co-Spokesperson) is a regular Collaboration Board member, a replacement is chosen by the affected Institution. The period of office of the Spokesperson and the Deputy Spokesperson is two years, renewable - but at most four consecutive years.

The Spokesperson, as Collaboration Executive

- organizes and chairs Collaboration Board meetings
- during the IceCube construction phase is the interface between the collaboration Board and the Project Office, communicating with the Project Office on behalf of the Collaboration Board.
- arranges general Collaboration meetings
- speaks for the Collaboration in interaction with the scientific community
- speaks for the Collaboration in interaction with the general public
- selects members of Collaboration advisory committees subject to concurrence by Collaboration Board majority vote
- during the IceCube construction phase communicates with the International Oversight and Finance Group (defined in the Project Management Plan) on behalf of the Collaboration Board.
- calls for and oversees formal votes on particular issues

# 4. Meetings

As a rule, the Collaboration Board meets during general Collaboration meetings. More frequent telephone or video conferences may be called by the Spokesperson, with normally two weeks prior notice having been given Board members. A minimum of two-thirds of Collaboration Board members is required to constitute a quorum. The Spokesperson will appoint a secretary to each Collaboration Meeting for writing the minutes. The minutes will include all decisions that were taken. Minutes will be posted on the IceCube private www site within one week following the meeting, following approval by the Collaboration Board members.

# 5. Executive Committee

The Spokesperson, in consultation with the Collaboration Board and, during the construction phase, with the P.I. and the Project Director, appoints and chairs an Executive Committee of the Collaboration Board. The term of the Executive members is two years. The job of the Executive Committee is to advise the Spokesperson in proposing actions to the Collaboration Board and in making interim decisions. The members of the Executive Committee should represent major groups, functions and competences within the Collaboration.

# 6. Voting procedure

In general, matters before the Collaboration Board are settled by consensus of its members. A formal vote will be ordered by the Spokesperson, if called for by a Collaboration Board member or by the Spokesperson. The vote of an institution is weighted in dependence of the number of Ph.D. physicists. The weight is equal to the square root of PhD physicists, rounded to the nearest integer. The weights are fixed twice per year. In case of a tie vote, the Spokesperson casts a vote. Results will be announced to the Collaboration Board by the Spokesperson. Polling is done by Email or at meetings of the Collaboration Board. All votes will be open, except where persons are concerned. The voting procedure for the spokesperson is described in section 3.

# 7. Education and Outreach

The IceCube collaboration collectively and individually participates in and provides support for efforts in public outreach and education on subjects related to its science. The Spokesperson, with Collaboration Board concurrence, responds to requests for information from the media or may take the initiative providing material. The Project Director, with Collaboration Board concurrence, appoints a Collaboration member to lead an education program for students and teachers at all levels. In the operations phase of IceCube Spokesperson assumes responsibility for the appointment. The Collaboration maintains coordination and cooperation with other ongoing education initiatives. All material to be released for purposes of public outreach or education containing other than previously published data or results must have been agreed upon by the Collaboration Board.

# 8. Collaboration Policies and Procedures

1. **Meetings**

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Collaboration meetings are held at least two times in a year. Locations are distributed among Collaboration Constituent institutions, chosen by the Spokesperson, and ratified by Board concurrence. The hosting institution is responsible for physical meeting arrangements. Agendas are set by the Spokesperson together with the hosting institution, the working group leads and the L2 managers, with concurrence of the Collaboration Board.

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2. **Data Reduction and Analysis**

Raw, unfiltered data written to tape at Pole are transported to the UW data center for archival storage. Filtered data are transmitted daily via satellite link to the UW data center and stored on disk. Additionally, the filtered data will be copied via internet to DESY and stored on disk as a second official copy. Possible reassignments in the operation phase are the responsibility of the Spokesperson, given Collaboration Board concurrence. All current members have access to archived data. The Collaboration Board consents to the appointment of Collaboration members who have been chosen by the Project Director to lead the Detector Verification efforts. The Spokesperson, with Collaboration Board concurrence will appoint an Analysis Coordinator to work as a liaison with the Project Office to organize working groups as appropriate. The term of service is two years, renewable. In the Operations phase of IceCube the Analysis Coordinator assumes responsibility for organization and management of data analysis efforts.

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3. **Detector operations and monitoring**

During the Construction phase of IceCube the Detector Commissioning & Verification lead has responsibility for overseeing the operation of, and verifying the performance of, array components as installed and commissioned. In the Operations phase of IceCube, the Spokesperson with Collaboration Board concurrence appoints a Collaboration member to organize and lead a group responsible for detector Monitoring, Maintenance and Calibration. The term of service is one year, renewable. Detector monitoring is a collaboration-wide shared responsibility.

# 9. Topical and General Conference Presentations

The Spokesperson, with concurrence of the Collaboration Board, appoints a Collaboration member to chair a Speakers Committee. The designated chairperson chooses three (max. four) other members of this Speakers Committee. The term of the speakers committee is 2 years. A rapid decision channel (chair + spokesperson) can be enabled if there is insufficient time to involve the whole committee. Invitations to present Collaboration results, or performance reviews, are submitted to the Speakers Committee. The Speakers Committee chooses the speaker.

The Speakers Committee maintains records of conference presentations. The conference organization is notified by the Spokesperson of the identity of the nominated speaker and the subject of the talk and its approval is sought. Approval must be obtained from the Spokesperson, with Collaboration Board concurrence, to present previously unreported data and/or results. Transcriptions of verbatim reports of approved presentations to be included in conference proceedings are posted on the IceCube www site not later than two weeks before the editorial deadline to allow review, comments and suggestions for revisions by the Collaboration. The Collaboration Board approves final text, figures, and tables. Such controls do not normally apply to colloquium or seminar talks at members' home or other institutions on personal invitation but the Collaboration Board must be made aware of any new results which differ from results already public or might be controversial. For presenting such results Collaboration Board approval must be obtained.

Reports in proceedings are bylined with the presenter's name followed by "for the IceCube Collaboration". The complete author list in alphabetic order should if possible be included. Otherwise a reference is made to the complete author list elsewhere. The Collaboration Board constructs the author list from compilations provided it by Constituent Institution representatives. Others who have contributed to a particular effort may be included as authors. Individual requests not to be included as authors are acceded to without prejudice.

Any Constituent Institution representative may request a variance from the default listing to allow a conference presentation authored by a subset of members and others who have contributed to a particular special (usually technical) subject. A 2/3 majority of the Collaboration Board is required for approval.

# 10. Publications

The Spokesperson, with concurrence of the Collaboration Board, appoints a Collaboration member to chair a Publications Committee. The designated chairperson chooses up to six other members of this Publications Committee. The term of the publication committee is 2 years. This committee coordinates the appointment of internal review committees for each paper in coordination with the analysis coordinator and the working group leaders as described in Appendix C, Section 1.5.1.3.

Results are to be submitted for publication in refereed journals. Drafts of research results are prepared by the analysis teams; drafts of papers on technical matters are prepared by the cognizant individuals. The internal review procedure is described in Appendix C Journal articles are bylined by the full author list in alphabetical order. The Collaboration Board constructs the author list from compilations provided it by Constituent Institution representatives. Others who have contributed to a particular effort may be included as authors. Individual requests not to be included as authors are acceded to without prejudice. Any

Constituent Institution representative may request a variance from the default listing to allow submission of a paper for publication authored by a subset of members and others who have contributed to a particular special (usually technical) subject. A 2/3 majority of the Collaboration Board is required for approval.

## 11. Ph D Research

Research topic assignments are the responsibility of the students and faculty supervisors. Discussions among faculty supervisors and Collaboration Board members are encouraged to avoid serious overlaps in subject matter and/or analysis methodology. The spokesperson maintains a list of completed and current theses. Texts of theses are posted to the IceCube private www site and may be posted at the institution www site. Titles and author names are posted on the official IceCube www site.

## 12. Amendments

This document will be reviewed for proposed amendments as necessary. Any member of the collaboration may bring such proposals to the Collaboration Board's attention. Proposed amendments to this charter will be considered during regular meetings of the Collaboration Board. A 2/3 majority of the Collaboration Board is necessary to pass an amendment.

# Appendix A: IceCube Institutions

(ordered alphabetically according to location)

a. Initial IceCube Institutions (application 1999 to NSF):
   i. CTSPS, Clark-Atlanta University, Atlanta, USA
   ii. Southern University and A&M College, Baton Rouge, USA
   iii. Lawrence Berkeley National Laboratory, Berkeley, USA
   iv. University of California-Berkeley, Berkeley, USA
   v. Université Libre de Bruxelles, Brussels, Belgium
   vi. University of California-Irvine, Irvine, USA
   vii. Kalmar University, Kalmar, Sweden
   viii. University of Kansas, Lawrence, USA
   ix. University of Wisconsin, Madison, USA
   x. Universität Mainz, Mainz, Germany
   xi. Bartol Research Institute, University of Delaware, Newark, USA
   xii. University of Pennsylvania, Philadelphia, USA
   xiii. Institute for Advanced Studies, Princeton, USA
   xiv. Stockholm Universitet, Stockholm, Sweden
   xv. Uppsala Universitet, Uppsala, Sweden
   xvi. BUGH Wuppertal, Wuppertal, Germany
   xvii. DESY-Zeuthen, Zeuthen, Germany

b. IceCube Institutions as of April, 2007:
   i. RWTH Aachen, Aachen, Germany
   ii. CTSPS, Clark-Atlanta University, Atlanta, USA
   iii. Southern University and A&M College, Baton Rouge, USA
   iv. Lawrence Berkeley National Laboratory, Berkeley, USA
   v. University of California-Berkeley, Berkeley, USA
   vi. Humboldt University, Berlin, Germany
   vii. Université Libre de Bruxelles, Brussels, Belgium
   viii. Vrije Universiteit Brussel, Brussels, Belgium
   ix. University of Canterbury, Christchurch, New Zealand
   x. Chiba University, Chiba, Japan
   xi. University of Maryland, College Park, USA
   xii. Universität Dortmund, Dortmund, Germany
   xiii. University of Gent, Gent, Belgium
   xiv. MPI für Kernphysik, Heidelberg, Germany
   xv. University of California-Irvine, Irvine, USA
   xvi. University of Kansas, Lawrence, USA
   xvii. University of Wisconsin, Madison, USA
   xviii. Universität Mainz, Mainz, Germany
   xix. Université de Mons-Hainaut, Mons, Belgium
   xx. University of Delaware, Newark, USA

xxi. University of Oxford, Oxford, United Kingdom
xxii. University of Wisconsin, River Falls, USA
xxiii. Amundsen-Scott Station, South Pole, Antarctica
xxiv. Stockholm Universitet, Stockholm, Sweden
xxv. Pennsylvania State University, University Park, USA
xxvi. Uppsala Universitet, Uppsala, Sweden
xxvii. Utrecht University, Utrecht, Netherlands
xxviii. Universität Wuppertal, Wuppertal, Germany
xxix. DESY, Zeuthen, Germany

# Appendix B:

# IceCube Early Career Scientist Elections

a. **Definition of IceCube EC Scientist**: An Early Career scientist is a member of the IceCube collaboration who has received their Ph. D. within 5 years of the most recent past January 1st, but who has not received the position of professor or its European equivalent.
b. **Election Oversight Committee**: The EC representatives will annually and prior to the elections appoint a committee of two members taken from the entire collaboration, excluding persons eligible and accepting nominations for EC representative in the upcoming election, to oversee the election.
c. **Nominations for EC Representative**: The current year's representatives will solicit nominations collaboration- wide for EC representatives. These nominations will be collected by the members of the oversight committee and posted. Self-nomination is permitted.
d. **Voting**: Each EC scientist possesses two votes. One vote is weighted with 2 points, the other is weighted with 1 point. Each vote must be assigned to a different person - i.e. a single vote caster may not vote all 3 points to a single nominee. These votes are sent to the oversight committee. One is allowed to vote for one's self. Votes are counted privately by the oversight committee. The two persons receiving the top two vote counts will be announced by this committee as the new EC scientist corepresentatives. In the event of a tie between 2nd and further places, a tie-breaking round of voting with the ballot containing just the tie holders, will be held to determine 2nd place, with a single vote per EC scientist.

# Appendix C: IceCube Data Analysis and Detector Verification Plan

This document sets forth the plan for the organization and implementation of the physics benchmarking and verification (i.e. data analysis) for the IceCube project. The data analysis is a level 3 project task placed under WBS 1.5.1. There are four 1.5.1 Level 4 subtasks that are listed here.

## 1.5.1 Detector Verification and Physics Analysis

- 1.5.1.1 Planning Documentation
- 1.5.1.2 Analysis Coordination
- 1.5.1.3 Internal review Process
- 1.5.1.4 Talks

## 1.5.1.1 Planning Documentation

Planning documentation is composed of this document in its entirety, which lays out the plan for data analysis of IceCube data. This plan will be reviewed by the IceCube project and the IceCube collaboration and once approved will be implemented. Approval and/or modification requires the data analysis plan to be accepted by:

1. IceCube Project PI
2. IceCube Collaboration Spokesperson
3. IceCube Project Director
4. IceCube WBS 1.5.1 Level 2 & Level 3
5. IceCube Collaboration board

This document should not conflict with the IceCube collaboration governance document. If there are any conflicts the collaboration governance document takes precedent.

## 1.5.1.2 Analysis Coordination

Analysis coordination has two level 5 tasks that are:

- 1.5.1.2.1 Analysis Coordinator
- 1.5.1.2.2 Working Groups

Although the two tasks are at equal WBS levels the analysis coordinator has project and collaboration authority over the working groups as laid out in this document.

# 1.5.1.2.1 Analysis Coordinator

a) Selection of Analysis Coordinator

The procedure for selecting the Analysis Coordinator, as laid out in the collaboration governance document, is by appointment from the spokesperson or persons with concurrence of the collaboration board.

b) Term of Analysis Coordinator

The term of the Analysis coordinator will be two years. The current Analysis Coordinator may be nominated to remain as Analysis Coordinator.

c) Responsibilities of Analysis Coordinator

The responsibilities of the analysis coordinator are the overall organization and oversight of the working groups and physics analysis of the IceCube data. Specifically the Analysis Coordinator will:

1. Have oversight of the physics analysis
2. Aid in defining the physics working groups
3. Aid in selection of working group leaders
4. Have input on internal review processes for publications and talks
5. Have input on the distribution of talks
6. Have oversight of analysis documentation

From the list above it is clear that the Analysis Coordinator has general oversight over all WBS 1.5.1 level 4 tasks. During the term of the Analysis Coordinator he/she will act as the WBS 1.5.1 Level 3 lead.

As level 3 lead for WBS 1.5.1 the Analysis Coordinator will have control of the project resources necessary to directly and successfully execute the responsibilities of Analysis Coordinator. As a project level 3 the Analysis Coordinator will also acquire the additional responsibilities as set forth by the project office for all level 3 leads.

# 1.5.1.2.2 Working Groups

a) Preliminary list of working groups

Working groups are organized a) according to event topologies and the related filter and reconstruction methods and b) according to physics topics. Topology-driven groups can be, for instance:

1. Muons

2. Cascades
3. Hybrid events
4. ...

with the physics topics such as AGN, GRB, WIMPs etc... as subcategories in each working group with the same physics topic across groups. A possible grouping according to physics topics would be:

1. Atmospheric neutrinos and oscillation studies
2. Point Source Searches
3. Diffuse Neutrinos
4. GRB neutrinos
5. neutrinos from WIMP annihilation
6. Cosmic ray studies
7. Exotic particles like magnetic monopoles or Q-balls
8. MeV neutrinos from Supernova bursts
9. Extremely High Energy Phenomena (EHE)

with detector and reconstruction methods as tools to be developed across different working groups. Definition of groups will be kept dynamically, with the list above representing the 2006 status.

b) Selection of Working Groups & Group Leaders

The Analysis Coordinator will coordinate and implement the analysis effort for the IceCube detector in order for it to accomplish its scientific mission. The analysis coordinator and WBS 1.5 level 2, with input from the entire collaboration, will determine the physics benchmarks and processes and organize physics working groups to ensure that these processes are measured. The Analysis Coordinator, spokesperson and PI will select the working group leaders with input from the IceCube collaboration and IceCube project office. The position of working group leader is not a fixed length appointment, but should normally be no shorter then a year and is reviewed yearly by the Analysis Coordinator.

c) Responsibilities at Working Group Level

The physics working group leaders have direct responsibility for organizing the individual data analyses of the IceCube detector. They will:

1. Organize their physics working group
2. Define & verify standard datasets for their particular physics processes
3. Verify the operation and performance of the IceCube detector, primarily as it pertains to their physics processes of interest
4. Document the physics analysis and approved results with memos
5. Document analysis tools with memos

6. Place memos on Docushare for collaboration access and maintain the Docushare areas related to their working group
7. In addition to memos on Docushare, maintain a (possibly separate) web page that describes the status of the WGs activities
8. Approve standard results from their group to be submitted to the collaboration board for publication and presentation.
9. Request a paper committee for journal publication of approved results

Organization of people within a physics working group should generally be organized by the working group leader, with a mailing list established. However, all physics working group activity is open to the entire collaboration at any time. Regular meeting times and activities should be established whenever possible to encourage all who are interested to be able to plan on participation. The working groups are encouraged to schedule regular biweekly teleconferences and/or videoconferences.

## 1.5.1.3 Internal Review Process

Internal review is the process by which the IceCube collaboration will assure uniform and high standards for the publication and communication of physics results to the community. There are two levels of approval for results:

1. Approval as preliminary result for communication at conferences and talks
2. Approval of final results for publication in refereed journals

a) Approval of preliminary results for talks

For approval of preliminary results to be disseminated to the community at scientific talks and conferences the following must happen:

1. Approval by physics working group
2. Dissemination of memo with supporting information to collaboration no less then two weeks before collaboration board approval
3. Collaboration board approval

Upon approval the result becomes an official preliminary result. The result will be placed in a common collaboration area on the IceCube web page by the physics working group, and the result is available for use in talks and conferences by any collaboration member.

b) Publication of papers

The publication of a result in a paper is initiated within a physics working group. The group leaders will appoint a working group internal committee of experts to review and resolve physics issues to the satisfaction of the committee and group

leaders. The results to be published and supporting memo must then be approved by the collaboration as described above. If approved the following sequence is applied:

1. The working group leader selects an author or authors.
2. The authors present a first draft that has been approved by the above expert committee. The paper committee is essentially the expert committee above and the authors.
3. The committee and authors allow two weeks for comment from the collaboration. Comments should be mainly of a substantive nature, but can also be editorial. The paper, comments, and answers to comments should all be posted on the web.
4. If the committee and working group leader are satisfied that questions and comments have been satisfactorily addressed a second draft will be presented to the collaboration, allowing two weeks for comment. These comments should be editorial in nature. The paper, comments, and answers to comments should all be posted on the web.
5. Upon approval of the committee, working group leader and Analysis coordinator a final draft of the paper is presented to the collaboration board for approval.
6. The collaboration board considers the paper for submission

c) Unusual or unplanned physics topics

In the event of an analysis that does not fall within a working group, the Analysis Coordinator will select an expert committee directly and act as the working group leader and Analysis Coordinator in the processes described above for approval.

## 1.5.1.4 Talks

The policy on talks and presentations, and on the speakers committee is properly a collaboration function, which is set forth in the IceCube collaboration governance document.