
INTEROFFICE MEMO

DATE: 7/4/2003
TO: LEE SAMUEL FINN
FROM: LEE SAMUEL FINN
RE: GWIC MINUTES

ATTENDEES

- Barish (Chair; LIGO)
- Finn (Exec. Sec)
- Sanders (LIGO)
- Bradaschia (Guest)
- Giazotto (Virgo)
- Brillet (Virgo)
- Menzinger (Guest)
- Salamon (Guest)
- Horowitz (Guest)
- Hough (GEO)
- Schutz (LISA)
- Cutler (Guest)
- Will (Theory)
- Stebbins (LISA)
- Brillet (Virgo)
- Tsubono (TAMA)
- Fujimoto (TAMA)
- Prince (LISA)
- Vitale (LISA)
- Jennrich (Guest)
- Weiss (Guest)
- Danzmann (GEO)
- Coccia
(EXPLORER/NAUTILUS)
- Cerdonio (AURIGA)
- Blair (ACIGA)
- Pallotino (Guest)
- Hamilton (ALLEGRO)

AGENDA

CHAIRS REPORT

(Barish)

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1. Introduction to GWIC
2. Introduction of meeting participants
3. Agenda Overview
4. IUPAP/PaNAGIC Report
 - a. IUPAP recent issues: Barish reviewed the history of IUPAP, which (loosely speaking) can be thought of as a United Nations for Physics. IUPAP's focus in recent years has involved the free participation of scientists (especially students and researchers) to attend international meetings, and the participation of women in physics, internationally. IUPAP recently sponsored a meeting in Paris, involving 3,000 participants, and focused on women in physics.
 - b. PaNAGIC recent issues: Barish reviewed GWIC's relationship with PaNAGIC and PaNAGIC's relationship with IUPAP. The principal issue concerning PaNAGIC in the last year has been the production of a HENAP report on future neutrino facilities underwater in Europe.
5. Collaborative R&D internationally
 - a. Barish initiated a discussion focused on the question of where can and should GWIC members be collaborating internationally toward future projects? Three areas were discussed separately: the development of spherical acoustic detectors, interferometers, and space-based detectors.
 - b. Spherical detectors: Coccia provided an overview of the status of spherical acoustic detectors worldwide. Three groups are involved in the development of this detector technology: Leiden, Rome and Brazil. The Mini-Grail Project in Leiden has formal collaborative agreement with Rome group, with Rome providing the Mini-Grail transducer and helping with data acquisition. The Schernberg project in Brazil has a room temperature device for testing.

Coccia moved and Hamilton seconded a motion that Mini-Grail be invited to nominate a representative to GWIC. In the ensuing discussion, Brilllet asked whether GWIC members represented themselves or their projects. Finn clarified GWIC's position, taken in its April 98 meeting, that projects, and not individuals, are members of GWIC, and that (formally) projects vote, and not individuals nominated by their projects. There was a short discussion on the question of whether it was better to defer inviting Mini-Grail to join GWIC until there was a revised GWIC statement endorsing spherical detector research, or until Mini-Grail left research and development and moved beyond the prototype phase. A straw vote saw a clear consensus in favor of adding representation by Mini-Grail to GWIC. An action is recorded that GWIC will invite Mini-Grail to designate a representative, and work with the spherical detector community on a

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revised statement endorsing research on next generation spherical detectors.

- c. Interferometers: Giazotto cited the need for technical meetings focused on common R&D aspects of advanced detector design, giving coatings and optics as a principal example of a shared technology. Menzinger described EGO's recent call for proposals and the approval of its first set of research grants. Blair pointed out that the political and funding situation in Australia is such that ACIGA must collaborate to remain viable. ACIGA collaborates closely with EGO on digital controls, TAMA on cryogenics, and LIGO on high-power lasers and optics. Barish takes note of the bilateral agreements that currently exists between experiments and asks that GWIC members consider whether the existing mechanism of project to project contacts and bilateral agreements are meeting the needs of the field or whether there is a special role that GWIC can or should play.
- d. LISA: LISA representatives to GWIC report that they are in the early phases of a proposal for a LISA follow-on mission. The main body of the international community will soon assemble to propose a coordinated international proposal. Barish reminds LISA that GWIC stands ready to provide any requested help in promoting LISA science.

PROJECT REPORTS

GWIC heard brief reports, focusing on management issues, from member projects.

ACIGA

Blair reports that ACIGA is reasonably well funded by Australian standards for the last year and next three years. This has strengthened Australian project, including especially infrastructure improvements at Gingin. ACIGA has an especially strong collaboration with LIGO, focused on high-power laser and optics for advanced LIGO. The University of Western Australia has become better funded under the Australian "Centers of Excellence" Program. Funding is generally difficult in Australia for large, sustained projects.

Allegro

Hamilton reports that ALLEGRO's primary goal is to operate for extended periods in collaboration with interferometer projects: especially its neighbor the LIGO Livingston Observatory. ALLEGRO's current funding continues for two more years. Hamilton expects that funding will be renewed following that unless there is an exceptionally large jump in interferometer sensitivity. There is a strong collaboration between ALLEGRO and the University of Maryland group on low-noise amplifiers, and with the AURIGA group on transducers, for high-bandwidth detectors.

Auriga

Cerdonio reports that an IGEC paper reporting on the analysis of 4 years of data, through 2001, will soon appear in Physical Review D.

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Auriga is well funded and its funding is stable; however, the Italian government has recently instituted a hiring freeze that affects university positions. Correspondingly, open positions cannot, at present, be filled. Cerdonio is unsure how long this will continue. A recently funded EGO proposal, concerning R&D on an acoustic "Dual" detector, is providing funding for the hire of one critical person.

Explorer/Nautilus

Both Explorer and Nautilus have been taking data since the beginning of May with current performance better than in the previous run. The group has completed an internal debate on how to analyze data in future. The Astone contribution on Bayesian analysis to GWDAAW 2002 Conference Proceedings represents their current thinking.

The Rome group has signed a Memorandum of Understanding with Schutz, whereby Schutz will analyze the 2001 Explorer/Nautilus data set for periodic sources.

The Rome group proposed with Leiden for funding from EGO to support collaborative work on spherical detectors. This proposal was recently funded.

GEO

GEO and LIGO took data simultaneously during the LIGO S1 run. The GEO final optics were incorrectly polished to the wrong radius of curvature; however, adaptive thermal compensation using a suspended heating element to radiatively heat the optic can correct the curvature radius.

LIGO

LIGO successfully completed its first science data run and presented results from the first science analysis of LIGO data at several conferences. Papers describing these analyses are in preparation and will be distributed soon. LIGO's second science run took place from 14 Feb through 14 April and was a factor of 4 longer than the first run with significantly greater sensitivity. LIGO detector commissioning will continue interleaved with science run for at least the next year. Following a third science run, which will take place late in 2003, an external seismic noise pre-isolator will be introduced at the Livingston Observatory to mitigate against significant, unanticipated local seismic noise.

A comprehensive proposal for a significantly more advanced set of instrumentation – Advanced LIGO – has been proposed to the United States National Science Foundation. The proposal would start the advanced LIGO install in 2007. The proposal includes substantial international collaboration with contributions from the United Kingdom and contributions anticipated from Germany. An external review committee appointed by the NSF has favorably reviewed the proposal.

LIGO and GEO took data simultaneously during the S1 run, and LIGO and TAMA took data simultaneously during the S2 run. LIGO and TAMA have signed an agreement and appointed a team to analyze this joint data set.

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LISA

An important milestone was passed in February when NASA's proposed "Beyond Einstein" appeared in the President's budget. In that budget LISA was designated as the first major mission of the program line. LISA also underwent and passed a major technical readiness review. Formulation - the official U.S. start of the LISA Project - is expected to begin August 15, with the industrial study beginning in 2004. Current LISA project activity is focused on preparing for the SMART-2 technology demonstrator mission, which has both European and US instrument packages.

TAMA

Current TAMA funding from the Ministry of Education continues through 2005. That funding has two main research objectives: continued observations with and improvement of the TAMA 300 detectors, and research and development for the Large Cryogenic Gravitational-wave Telescope (LCGT). TAMA and LIGO are jointly analyzing data taken simultaneously the period 14 February - 14 April 2003.

A 100m prototype, named Kurio, for the LCGT is under construction in the Kamioka mine.

Virgo

Commissioning of the central interferometer ended in July 2002. The north arm is currently being commissioned and an engineering run for this arm is expected to take place in mid-July 2003.

REPORT OF THE NOMINATING COMMITTEE

(Fujimoto, Sanders, Vitale)

Every two years GWIC selects a new chair. The nominating committee (Fujimoto, Sanders, Vitale) solicited nominations from GWIC. Nominated were Cerdonio, Danzmann and Vitale. Vitale resigned from the committee upon being nominated. The committee discussed the nominations with the nominees. Both Vitale and Danzmann deferred to Cerdonio.

Barish asked if there were other nominations from the floor. There were no other nominations from the floor.

Given the agreement among the nominees Barish asked if there was a call for a secret ballot. There was no call for a secret ballot.

Barish asked for a voice vote on Cerdonio's nomination as GWIC chair. Cerdonio was selected as GWIC chair unanimously.

Cerdonio thanks GWIC for the honor and Barish for his service as GWIC's first chair.

The GWIC Chair selects his or her executive secretary, who need not be a GWIC member. In the interest of continuity Cerdonio asks Finn to continue as Executive Secretary. Finn agrees to continue as GWIC Executive Secretary.

MEETING REPORTS

Amaldi 2003 Final Report

(Bradaschia)

Bradaschia reported on the Amaldi 2003 Conference. There are a total of 257 registered participants, of which 70% are from outside Italy. The conference expense is anticipated to be 123.5K Euros and the conference will balance-out.

Application for IUPAP sponsorship needs to be made quite early. The deadline for IUPAP sponsorship of this meeting passed before the application was made. (To insure consideration of an application the application should be made no later than May of the year preceding the meeting.) Even though sponsorship was not possible, the meeting followed all the IUPAP guidelines for international meetings.

The organizers found that abstract and post submissions were opened late and this complicated the final arrangements for the meeting and arrangement of schedules. They recommend to future organizers that submissions be allowed sooner and that more time be allowed for speaker selection and session organization.

The organizers recommend that GWIC establish a policy to guide the scheduling of talks at future meetings: e.g., should there be many short talks or fewer talks of greater duration? What fraction of the speakers should be invited and what fraction selected from submitted abstracts? Barish commented that, while GWIC should give advice on meetings, GWIC meets too infrequently to provide specific recommendations in a timely fashion.

A short discussion on conference proceedings highlighted the importance of refereed publications to the continued funding of groups and individuals in many countries. Correspondingly the organizers and members of GWIC recommend that conference proceedings take advantage of journals, like Classical and Quantum Gravity, which will referee contributions and publish the refereed contributions in a special edition of the journal.

Aspen

(Sanders, Finn)

The Aspen Winter Workshop on Gravitational Waves and Their Detection has become the principal yearly meeting of the detector hardware community. It has twice been held away from Aspen: on Elba in May 2002 and at Moriond in winter 1999. The Moriond meeting was not successful – the Moriond participants have different needs and desires than the Aspen participants. The Elba meeting was quite successful.

A meeting of the principal Aspen meeting participants, held during the 2003 Aspen Winter Workshop, recommended a cycle of meetings with 2 meetings every three years in Aspen and the third meeting at Elba. The group recommended against further rotation in order to preserve the meeting format.

“Advancing Gravitational Wave Detectors: Pushing the Quantum Limits” and will be held Feb 15-21, 2004 at Aspen.

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ACIGA felt that the 2002 Elba meeting was much too expensive, especially for students. Barish: proposed GWIC look favorably toward Elba in 2005, but look carefully at cost to insure that it does not become exclusionary.

LISA Symposium

(Jennrich)

The Fifth LISA Symposium will be held 12–16 July 2004 at ESTEC in Noordwijk, Netherland. These dates immediately precede the GR17 meeting in Dublin and the COSPAR meeting in Paris. The Scientific Programme Committee consists exclusively of LISA International Science Team members. It is planned to hold the Symposium jointly with the trilateral ESA/ESO/CERN symposium. In this case 1.5d will be reserved for the trilateral, which will include LISA overview talks, and 3.5d for the LISA symposium proper, including presentations on astrophysics of sources; LISA technology and data analysis; modeling and simulation; and any discussion of ground-based detectors. The meeting will include invited talks, submitted talks, and posters. Owing to the ESA-provided infrastructure the conference fee will be a low 80/100 Euro, with a further reduction or waiver for students. The peer-reviewed proceedings will be published as a special edition *Classical and Quantum Gravity*. The first announcement will be circulated in August.

Finn, who chaired the LISA 4 organizing committee, noted that the LISA 4 organizing committee was chosen from the broader LISA and gravitational wave detection community and not exclusively from the LIST.

Barish noted that GWIC has suggested broadening the LISA meeting to be more inclusive of the broader gravitational wave detection community. The goal is not parity, but to help fuse what are currently two distinct communities. An attempt was made to do this with LISA 4 but was resisted by the LISA community, which felt that it needed the full meeting time. A consequence was that there was no ground-based participation, save the invited speakers. Currently the Amaldi meeting and the LISA Symposium meet in alternate years. It would be natural for the Amaldi meeting to serve for the LISA community in alternate years and the LISA Symposium to serve for the ground-based community in alternate years, and the Amaldi meeting has broadened to be more inclusive of LISA science. If the LISA Symposium continues to be exclusive, however, then GWIC will need to seek another venue for the broader gravitational wave detection community to meet in between Amaldi meetings.

GR17

(Cutler)

The GR 17 meeting will be held 19-23 July 2004 in Dublin, immediately following the LISA Symposium at ESTEC. The GR meeting format involves plenary lectures in the morning with parallel sessions in the afternoon. There are 15 plenary talks scheduled for GR17, with 2 directly related to gravitational waves (Barish will provide an overview and Malvalvala will lecture on advanced detectors.) The GR 17 organizing committee considered and adopted suggestions made by Barish and Finn, on behalf of GWIC, regarding the organization of the plenary sessions related to gravitational waves.

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Vitale noted that COSPAR (19-24 July 2004 in Paris) conflicts with GR17 and that there will be a session on Gravitational Wave Astronomy at COSPAR organized by Vitale and Centrella.

Cutler noted that Centrella is the GR17 Numerical Relativity organizer and will attend both meetings.

It is a political necessity that LISA be a participant in COSPAR meetings. Because COSPAR involves a community much larger than the gravitational wave community, the gravitational wave community will have to be sensitive to the scheduling of COSPAR meetings in the future in order to avoid conflicts.

Owing to the proximity of COSPAR and GR17 to the LISA Symposium it is unlikely that the LISA Symposium will be able to draw many astronomers. Absent also the ground-based community it is possible that the LISA Symposium could be marginalized this year. Vitale suggests that the summer 2004 GWIC meeting be held during the LISA Symposium and that there be a second ground-based talk at the LISA Symposium (currently only one is planned).

GWDAW

(Allen)

The 2003 GWDAW meeting will be held December 17-20 at University of Wisconsin-Milwaukee. In recognition of the intense schedule of the 2002 GWDAW (in Kyoto) the 2003 meeting has been extended an additional 0.5d. Proceedings will be peer-reviewed and published as a special edition of *Classical and Quantum Gravity*.

Barish asks about the identity of the GWDAW meetings: are these meetings focused on data or results, or analysis methods? Are these meetings conferences or workshops? Allen responds that the GWDAW is currently the only meeting where the data analysis community meets to discuss data analysis methods. The GWDAW is thus a workshop on data analysis and not a conference.

Hamilton notes that originally the GWDAW meetings were open meetings where participants engaged in exploratory discussions and there were no published proceedings. The meeting is now more scripted, has less exploratory discussion, more polished talks, and published proceedings. Correspondingly, many groups with data will not discuss their data at the meeting. Is it possible to accommodate more open discussions, including discussions about data, with the understanding that nothing will be published or otherwise leave the room? Allen responds that the submissions to the proceedings are voluntary.

Other

GWPW, GRAVSTAT
(Finn)

The second Gravitational Wave Phenomenology Workshop will be held 6-8 November 2003 in State College, Pennsylvania. Additionally a new meeting, focused on statistics for gravitational wave data analysis – GRAVSTAT – will be held in the spring in State College, Pennsylvania.

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SPIE MEETING ASTRONOMICAL INSTRUMENTATION (Hough, Sanders)

The next SPIE Meeting on Astronomical Instrumentation will be held June 20-25, 2004. Hough and Sanders have been asked to organize sessions on instrumentation for gravitational wave detection. This meeting provides a good opportunity for gravitational wave instrumentalists to meet with instrumentalists in more traditional astronomical fields. This interaction did not take place at the 2003 meeting and the session organizers were urged to think about how they might improve the prospects for this interaction.

COSPAR SESSION ON GRAVITATIONAL WAVE ASTRONOMY AND FUNDAMENTAL PHYSICS (Vitale)

The next COSPAR meeting will be held in Paris from 19-24 July 2004. It will include a session, organized by Bender and Centrella, on Gravitational Wave Astronomy. While the meeting dates conflict with GR17, Bender and Centrella have also agreed to organize sessions at GR17 and will be attending both meetings.

It is a political necessity that LISA participates in COSPAR. Because COSPAR involves a community much larger than the gravitational wave community, the gravitational wave community will have to be sensitive to the scheduling of COSPAR meetings in the future in order to avoid conflicts.

TAUP2003

The Eight Topics in Astroparticle and Underground Physics (TAUP) conference will be held September 5 – 9, 2003, in Seattle. This IUPAP sponsored meeting is the principal meeting of the PaNAGIC community. The 2003 meeting will include parallel sessions on gravity and gravitational waves.

This meeting provides an opportunity for outreach to science colleagues not too far from the gravitational wave community. Unfortunately the gravity parallel sessions are in conflict with those on long-baseline neutrino experiments, which is perhaps the most significant “competition” one could have at this meeting this year.

To avoid these kinds of conflicts and to generally improve the likelihood of successful outreach to the broader scientific community GWIC should take a more proactive role in proposing sessions to large meetings like this one. This would likely result in better scheduling and talks or sessions that are more likely to communicate the interesting and exciting work going on in gravitational wave detection.

MARCEL GROSSMAN

The Marcel Grossman meeting will take place this year in Rio de Janeiro at the beginning of August. It will include sessions on gravitational waves, and also on gravitational wave detection through pulsar timing, something not represented on GWIC or at Amaldi meetings.

The Marcel Grossman meeting is one that GWIC has not engaged, and has not sought to engage GWIC.

AMALDI 2005

(Fujimoto)

The GWIC heard a proposal by TAMA to host the 2005 Amaldi meeting. The proposed meeting dates were 1 – 5 Aug 2005, which is after the end of the semester and the rainy season. The initial proposal would use the facilities of Osaka City University for the meeting, which would allow for up to 264 participants in plenary sessions. Attendees would stay in hotels in downtown Osaka, which is 15-35 minutes by train from the University. Additional low-cost (30-50 Euro) housing would also be made available out-of-town. A social excursion to a nearby cultural site (e.g., Osaka Castle) would be part of the program. The approximate conference cost would be 280 Euro, including banquet, and would include a copy of the conference proceedings.

While generally supportive of the TAMA proposal, GWIC expressed several concerns regarding the details. In particular, the separation of the lodging from the conference site, and the multiplicity of hotels involved in providing lodging, were seen as a significant impediment to the after-hours scientific exchange that is an important part of the meeting. There was also concern, based upon the growth of the field and attendance at past meetings, that the conference size might be as great as 300. GWIC members recommended that the organizers consider arranging a special edition of Classical and Quantum Gravity for the conference proceedings.

A straw-poll showed a clear consensus for TAMA to host the Amaldi meeting, but with the recommendation that the proposers look at alternative arrangements that would integrate accommodations with the meeting facilities and allow for a meeting size closer to 300 participants.

THEORETICAL NEEDS

(Barish)

As we move toward observations that are astrophysically interesting, whether detections or upper limits that challenge theoretical understanding, GWIC should remain aware of whether the theoretical investigations needed to support the interpretation of observations are keeping pace with the observations or if they need additional support, encouragement, or guidance.

In the United States there is a joint NASA/NSF initiative to increase the funding available for the support of computational activities that will support LIGO and LISA. A community panel assembled by NASA and the NSF recommended an additional 1.5 million US dollars per year for computational infrastructure and 3.5 million US dollars per year to support source simulation activities in support of gravitational wave astronomy.

In Europe the EU Network mechanism provides some opportunity for similar funding, though not on this same scale. This is a potential problem for European participation in LISA data analysis, since ESA does not fund space mission data analysis activities. EGO is considering providing funding for theoretical investigations in support of gravitational wave detection or the interpretation of observations; however, these discussions are at a very preliminary stage.

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A programmatic statement or white paper by GWIC that the field has theoretical needs would be valuable in making the case for increased funding to the different European funding agencies.

PROGRESS TOWARD AN INTERNATIONAL GRAVITATIONAL WAVE DETECTOR NETWORK

(Barish)

GWIC began an informational discussion on inter-project analysis agreements.

IGEC stands as a model for the community of an international gravitational wave detector network. At present it encompasses only the acoustic detector community. The interferometric gravitational wave community is less mature in terms of technology, operations and analysis experience. At present the interferometric community has some bilateral agreements in place for cooperative analysis. These include

- GEO/LIGO/Virgo exchange of physical environment monitoring data;
- GEO membership in the LIGO Scientific Collaboration;
- A bilateral agreement between LIGO and TAMA to analyze data taken during their simultaneous 14 Feb – 14 April 2003 data runs.

(Additionally, Virgo reports that at the last Virgo Executive Council it was decided that Virgo wishes to join in an international network as soon as it has science quality data to share.)

Each of these arrangements follows a very different model. Are there things that GWIC should be doing toward starting a network or supporting existing networks, or should we stand-by and observe the progress of the bilateral agreements for now?

Finn observed that there is not yet sufficient experience to conclude whether one model is better than another; nevertheless, because of the difficulties of a network agreement started and the network implemented we should begin active discussions now, and the project leaderships should clearly signal the priority given to this activity.

Weiss expressed the concern that greater international cooperation needs to begin soon: if it is delayed we risk being confronted with an observation before we are ready as a community to verify it. If any group tries to publish detection results at this stage the non-gravitational-wave community will ask if others saw it. It is critical that data is properly compared between the operating detectors.

Hamilton pointed out that it took quite a long time to put together IGEC. If GWIC is going to sponsor a network then it should act now to put together a sub-committee that can recommend a framework for approval and adoption.

Barish cautioned against building in mistakes recognized from past experience. He observed that we are, in fact, not too far from the place where we can check each other's results and, as Weiss observed, this is a critical requirement. The first important timescale is how rapidly we can move to do these checks. This requires that we clearly understand among ourselves what each group reports: that we "speak a common

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statistical language.” Meeting this pre-condition is the subject of the next agenda item: the creation of a statistics sub-committee. After we have established the capability of checking each other’s results the next step is taking advantage of the value-added by having more detectors operating together at the analysis stage.

STATISTICAL ANALYSIS SUB-COMMITTEE

(Barish)

At the Kyoto Meeting, GWIC left as a action the creation of a subcommittee charged with developing and recommending to GWIC a set of standard statistics for the reporting of results from observations that will allow comparison of results reported by different gravitational wave experimental collaborations. The goal of these recommendations would be to create a common language, permitting the comparison of results between experiments. Reporting results according to these protocols would be in addition to – and not in lieu of – any particular analysis that each group would otherwise undertake. A memo, drafted by Barish and Finn describing a proposal for a three-person committee, charged to consult broadly, was circulated to GWIC before the meeting. Finn reviewed the proposal.

There was general discussion of the question of whether committee should consist of a subcommittee of the project directors themselves, or as the GWIC acting as a committee of the whole. Barish responded that the committee members need a connection to the GWIC but also expertise in statistics. The project directors are, in this sense, not the most appropriate people for the committee. The committee will report recommendations to GWIC, which it can choose to reject, modify, or adopt as it sees fit. There was also a concern regarding whether the committee should emphasize people knowledgeable in statistics or data analysis team leaders.

There followed discussion on the committee size, with some expressing concern that a committee of three, even with the charge to consult broadly, was too small. One suggestion made was that the committee should include one representative from each project. It was generally agreed, however, that the committee should be kept small in order that it be a working committee.

The general committee charge was also discussed. There was concern that any committee suggestions adopted by GWIC not be taken as a straightjacket that precluded, forbade, or discouraged independent analysis activities being undertaken by individual projects. All agreed that this would not be the case. Blair recommended that defining a common language is an important first step toward operating all the detectors as a worldwide network. Beyond that, the next step is to determine protocols for access to data. The final step should be to establish an oversight committee to review results that come out of network and to check them carefully. Within this context, however, it is important to leave the use of the data to the discretion of the scientists who are responsible for taking it.

Brillet asked what role GWIC should play in the eventual presentation of results. Should GWIC endorse certain statistical approaches before detections are made, or should it support results claimed by one or more groups once these have been agreed to by the GWIC? These are two different ways of acting.

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The proposal was separated into two parts: first, the question of whether a committee, with the general charge suggested in the Barish/Finn memo, should be established; second, the question of committee membership. The question of the formation of a committee that would report recommendations back to GWIC was clearly endorsed by the GWIC membership. Barish recommended that GWIC consider two possibilities for committee membership: first, that it starts with a small group that could expand, and second, that it have one members from each experiment, nominated to Cerdonio as the new GWIC chair.

The discussion balanced the tension between desiring that each group be represented against the fact that large groups are unwieldy. Schutz recommended that, since this is a working group that comes back to GWIC with recommendations the appropriate place for consultation is when the recommendations reach GWIC. The working group should definitely have the brief to consult, and needs to have representation from both the bar and interferometer communities, but if it grows beyond five individuals it will be too large to work well.

The discussion concluded with the agreement that Cerdonio would consult with each representative to GWIC privately and form a small committee, which will offer a preliminary report to GWIC at the GWDAAW if there is a GWIC meeting there, and otherwise will provide a written report to GWIC at its 2004 meeting.

GUIDELINES FOR PUBLICATIONS AND PRESENTATIONS

(Barish)

A field as young and discovery-oriented as gravitational wave detection bears a special burden to come forward with results that are correct and convincing. With that goal in mind Barish was charged at the Kyoto meeting with preparing for discussion a set of guidelines for the presentation of new experimental results from the large collaborations in our field. The goal is to establish common "best practices" for communication within our field that will optimize the quality and reliability of papers that are submitted for publication. The proposed guidelines covered five points:

- Use some common statistical tools to permit comparison of results between experiments across the global community. This is important for our ability to check each other's results; it is also important to allow the larger scientific community to assess and understand those results.
- Present new results early in technical seminars within the gravitational wave detection community, before the preparation of a manuscript or presentation in a major forum. Early presentation allows for the healthy exchange of information and provides feedback that can improve the quality and clarity of the analysis and its presentation.
- Distribute manuscripts within the community for comment before they are submitted for publication and give serious consideration to the comments received.
- Refrain from discussion results with the press until after the manuscript has been accepted for publication.

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Discussion began with the final point, on press contacts. Presentations at major forums, and sometimes even in technical conferences, are often monitored by the press. Still, it is possible to keep important results from being realized as significant by the press. An anecdotal example is that the results leading to the announced discovery of atmospheric neutrinos were discussed for 3 years before becoming known to the press. The most significant first result in our field is the first detection, which is an exceptional case and should not be used to judge the merits of the proposed guidelines.

Vitale pointed out that posting results to gr-qc or astro-ph is to broad dissemination to be consistent with the pre-submission circulation guideline. Another circulation mechanism is needed to meet this goal. Additionally, the comment period must be kept reasonably short in order that publications are not delayed.

The description of these bullets as guidelines was discussed. In particular, if they are guidelines, and not rules, what does it mean to take comments into "serious consideration"? The intent of the guidelines is to insure that comments are heard before submission and not after. The expectation is that the comments will be the thoughtful and helpful ones of colleagues. It rests with the judgment of each group to make the best use of those comments.

There was discussion of whether this kind of informal "internal review" was necessary, given that journals have a formal refereeing process. The general consensus was the size and complexity of these experiments is so great that no external referee will be able to do more than give the results a surface review. The responsibility of asking the deeper questions must rest with the field.

Blair pointed out that, in addition to the advantages that can be gained by circulation of results and consideration of thoughtful comments, there is also a matter of courtesy in informing your colleagues of your results.

Weiss made the suggestion that GWIC establish the expectation that a claim of detection carries with it the burden of sampling other groups and presenting, with the claim, an explanation of why the claimed detection was not seen by the other groups. This is in lieu of the best outcome, which would be the joint publication of several papers together.

Barish asked for a straw poll on adopting the document as a basis for a final draft, which will be assembled by Cerdonio after comments and consultation with the members of GWIC. The consensus was that the document be adopted as a starting point and that Cerdonio is charged to solicit comments and bring the document into a final form accordingly.

ADJOURN

Actions

1. (Cerdonio) Mini-Grail will be invited to nominate a representative to the GWIC.
2. (Cerdonio and Finn) GWIC will work with the spherical detector community on a statement endorsing work on spherical acoustic detectors.

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3. (Finn) GWIC by-laws, statements and other information will be assembled and made easily available on a revamped GWIC website.
4. (Finn) Work with Jennrich (chair, LISA Programme Committee) to arrange next GWIC meeting together with the 2004 LISA Symposium.
5. (Cerdonio) Consult with GWIC on membership of Statistics Sub-Committee.
6. (Cerdonio) Consult with GWIC on Presentation and Publications Guideline document.

LSF/LSF