
INTEROFFICE MEMORANDUM

TO: GWIC
FROM: LEE SAMUEL FINN
SUBJECT: 19 JUNE 2005 GWIC MEETING MINUTES
DATE: 5 AUGUST 2005

IN ATTENDANCE

MEMBER

- Massimo Cerdonio (Chair)
- Lee Samuel Finn (Exec Secretary)
- Barry Barish (LIGO)
- Peter Saulson (LIGO)
- Benoit Mours (VIRGO)
- Adalberto Giazotto (VIRGO)
- Karsten Danzmann (GEO)
- Stefano Vitale (LISA)
- Eugenio Coccia (ROG)
- Giorgio Frossati (MiniGRAIL)
- Masa-Katsu Fujimoto (TAMA)
- Timio Tsubono (TAMA)
- David McClelland (ACIGA)
- Warren Johnson (ALLEGRO)

GUESTS

- Harry Collins (Sociology Project)
- Odylio Aguiar (SCHENBERG)
- Norikatsu Mio (Amaldi Organizer)
- Kazukai Kuroda (LCGT)
- Stan Whitcomb (LIGO)

ACTIONS

All Projects

- Develop an automatically updated, public web site that provides current detector status (operational mode and sensitivity), which will be linked-to from the GWIC web site.

Finn

- Contact GWDAAW SOC chair and recommend that, while the committee need not include representatives from every project, every effort should be made by the committee to consult with the projects and insure that their interests and advice are taken into consideration in formulating the meeting program.
- Communicate to the GWDAAW Scientific Organizing Committee chair that GWIC would like to see a half-day session be set-aside at the forthcoming GWDAAW meeting for a "mini-workshop" on global network data analysis. During this session GWIC would like to see reports from each of the several working groups that GWIC will have established to investigate the analysis of shared data, followed by an extended period for open discussion.

- Communicate to the LISA Symposium and Amaldi Meeting organizers that GWIC proposes the LISA Symposium hosts two sessions on ground based gravitational wave detection with talks chosen accessible to the space-based detector community, and that the Amaldi meeting host two sessions on space-based gravitational wave detection, with talks chosen to be accessible to the ground-based community.
- Circulate the Resonant Detector Technology Development Report and statement of endorsement for GWIC to review.
- Re-circulate the draft report of the statistics committee for comment.
- Get copies of all collaborative data analysis MoUs and post on GWIC web site.
- Get list of publications from the different projects and post on GWIC web site.
- Get links from each project to a publicly available web page that provides science mode and detector sensitivity as a function of time.
- Prepare for GWIC discussion a concrete proposal for consultation within GWIC, prior to publication or other public disclosure, of any detection claim, indication or especially significant upper limit.
- Coordinate with the LISA Symposium organizers for a GWIC meeting either immediately before or after the LISA Symposium.

Coccia, McClelland, and Barish

- Contact the President of the GR Society (Cliff Will) and receive the appropriate assurances that the Amaldi Meeting will control its own program and plenary speakers and maintain its identity.

Cerdonio

- Work with Will to quickly produce an executive summary of the report on theoretical needs of the gravitational wave detection effort and, on a longer timescale, a white paper that documents the needs in more detail. The white paper will need to be more broadly consultative than the initial report.

Saulson

- Assemble technical teams to study network analysis protocols. These teams will make their first report at the December 2005 GWDAAW meeting.

MINUTES

9:30 AM: WELCOME AND INTRODUCTIONS (FINN)

9:35 AM: REPORT FROM THE CHAIR, INCLUDING IUPAP, PANAGIC & AC2 (CERDONIO)

- Cerdonio and GWIC express their thanks to Fujimoto for making all the local arrangements for the GWIC meeting.
- Cerdonio and GWIC welcome Benoit Mour as the new Virgo Spokesperson and Virgo representative to GWIC. Benoit Mours. GWIC is also glad to know that Adalberto Giazotto will continue as Virgo's second delegate.
- GWIC members Jim Hough, Tuck Stebbins, and Tom Prince send their regrets.
- One important decision that GWIC will take at this meeting is the venue for the 2007 Amaldi meeting. The IUPAP application for sponsorship of this meeting must be complete by May 2006. Since the application and approval process requires many steps, beginning with PaNAGIC, it is important that the application be started early. The process required four months for the 2005 Amaldi meeting and at least that much time should be allowed for the forthcoming application
- News from PaNAGIC
 - The next PaNAGIC meeting will take place at Zaragoza, Spain, in mid-September. PaNAGIC is currently considering setting up a panel for high energy gamma-ray astronomy. A panel in representing work in this area would naturally have some common interests with our own committee. Cerdonio will attend the Zaragoza meeting and keep GWIC informed.

10:00 AM: PROJECT REPORTS

Since there will be discussions and presentations throughout the Amaldi meeting, project reports at this GWIC meeting are kept brief.

ACIGA

- McClelland reports that the construction is continuing on the ACIGA 80m high power test facility. The facility now hosts sapphire substrate mirrors. The facility is currently being used in collaboration with LIGO to test thermal effects and associated instabilities.
- ACIGA is participating in data analysis activity as a member of the LIGO Scientific Collaboration. The University of Western Australia group is also working on data analysis with Virgo. Environmental data from ANU is being studied in collaboration with LIGO, GEO and Virgo.
- The ANU group is working with Caltech and MIT on the creation of squeezed states and their use in interferometers.
- Adelaide is working on high power lasers with TAMA.
- UWA is collaborating with LCGT on scattering in sapphire test masses
- UWA is collaborating with VIRGO on the isolation of cryogenic mirrors.

ALLEGRO

- Johnson reports that ALLEGRO has been observing, with high duty factor, for approximately the last 13 months.
- A new cooperative analysis agreement – IGEC-2 – has been signed between ALLEGRO, ROG and Auriga to jointly analyze data for the month of December 2004. It is expected that this agreement will be extended to cover much or all of the preceding 13 months.
- ALLEGRO is working jointly with LIGO on the analysis of S2 and S4 data to bound the amplitude of stochastic gravitational waves in the ALLEGRO band.
- ALLEGRO is facing two important programmatic questions.
 - A transducer upgrade has been in the works for some time now; however, the upgrade is still not ready. The critical questions are when will the new transducer be ready and how will the upgrade be coordinated with the operations schedule of the other detectors.
 - The second programmatic question is the ALLEGRO renewal proposal to the NSF, which must be made this year. ALLEGRO intends to apply for continuation funding at a level required to maintain and operate the detector for observations; however, they do not anticipate proposing for major upgrades or improvements.

AURIGA

- Cerdonio reports that AURIGA is now in continuous operation at 4.5K with a 100 Hz bandwidth about 920 Hz. A set of spurious line features that had been a significant source of noise outliers has been mitigated with the installation of a new seismic suspension. AURIGA expects that it can achieve an additional factor of 10 in sensitivity by reducing the operating temperature to 0.1K. This improvement will take one or two years. A new bar, similar to AURIGA but equipped with the new optomechanical transducer, will be operated at 4.2 K in the next year or so
- AURIGA funding is steady. The AURIGA group has one new position open, which it expects will be taken up by a young researcher currently working with the group.

EXPLORER/NAUTILUS

- EXPLORER and NAUTILUS have been in continuous operation with high duty cycle since the beginning of 2004 (about 1.5 year). The ROG group will be presenting new upper limits and new results on a double squid amplifier with a 70hbar noise performance .at the Amaldi meeting.

- ROG expects to propose in September 2005 to INFN for a 2m diameter CuAl spherical detector. The work on this new detector will be in collaboration with University of Leiden.

GEO

- GEO has been operating in conjunction with LIGO and, in particular, participated in the recent S4 data run. Work continues on the implementation of power and signal recycling: the final power recycling mirror is now hanging while the final signal recycling mirror remains to be installed. An application for internal Max-Planck-Society funding for continued work has been submitted. This funding will help support planning for a future advanced detector in Europe. Preliminary approval for the complete German contribution to advanced LIGO has been obtained; final approval is expected shortly.

LIGO

- LIGO Performance: In late March LIGO completed a very successful S4 data run. This was the first S-run following the installation at LLO of the seismic mitigation system. As measured by the inspiral distance figure-of-merit LIGO is currently about 30% from the design sensitivity (8-10 Mpc vs. 14 Mpc design sensitivity). Most encouraging is the greater than 70% duty cycle that was realized for each interferometer in S4, and which placed the triple coincidence duty cycle at 57%. This is all the more impressive since increased duty cycle was not a commissioning priority in the work leading up to S4. LIGO plans to enter into its first long and serious search run this fall, with the start date depending on how quickly and how close it gets to design sensitivity in the next two months. Once design sensitivity is reached the goal will be to get one integrated year of data before any substantial upgrade to the detectors is undertaken.
- Advanced LIGO: Advanced LIGO has been fully approved by the National Science Board and is currently fourth "in the queue" for MREFC (Major Research Equipment and Facilities Construction) funding. With these approvals and a place in the queue the probability that Advanced LIGO will be funded is high; however, the timescale is more uncertain. The best guide to the funding timescale is the out-year planning budget that is currently being carried by the U.S. Government Office of Management and Budget. In the out-year budgets Advanced LIGO appears in 2008. There are thus between three and four years before the major advanced LIGO activities will begin. The installation strategy will depend on many factors, including observational science and arrangements with other operating detectors. With this caveat LIGO will most likely break vacuum in 2010.
- Restructuring of LIGO Lab and LSC: The main activities at LIGO are now data analysis and preparing for the Advanced LIGO upgrade. In light of this evolution in mission, the Lab and the LSC have decided to restructure their relationship in order to better facilitate the data analysis activity and prepare for the LSC to play a major role in the Advanced LIGO effort. In the new relationship, the LSC and the LIGO Laboratory are combined into a single

entity, LIGO. Both now report to a single Directorate, consisting of the LIGO Director, the Deputy Director of the LIGO Laboratory, and the LSC Spokesperson. The LSC will maintain as much autonomy and separate identity as is possible, consistent with the need to meet LIGO's goals. Oversight of LIGO will now involve stakeholders from LSC institutions beyond Caltech and MIT and also technical consultants elected by the LSC.

- Laboratory Director: Barish has been offered and has accepted the position of Director of the International Linear Collider. This new effort will take the majority of his time. While he will remain at Caltech and a part of LIGO, he is stepping down as LIGO Director and retiring from teaching at Caltech. Caltech and MIT have asked the LSC to form a search committee to recommend candidates for the LIGO Directorship and the LSC has asked Jim Hough to chair its search committee. Caltech and MIT have also formed their own search committee. The goal is to complete the search this fall.
- LIGO Laboratory Management: To comply with a Congressional mandate, the NSF requires that the management of large laboratory facilities be periodically re-competed. LIGO has never been re-competed. At next fall's NSF review of LIGO, the NSF will consider whether now is the appropriate time for re-competition

On behalf of GWIC Cerdonio congratulates Barish and wishes him luck on his new challenge. Barish founded GWIC and his advocacy for gravitational wave detector research has had a very positive effect on detector efforts worldwide.

LISA

- ESA and NASA have reached a new agreement for the delivery of hardware associated with the construction of LISA. ESA will deliver the main instrument (Y-tube), with some components furnished by NASA. JPL will carryout system level integration of interferometry into the spacecraft. GSFC will deliver the drag-free control system and carryout integration with the spacecraft.
- ESA issued an ITT to Astrium for industrial design; Astrium began work in January '05. NASA colleagues have proposed a technology development plan (Feb). In parallel activity is beginning on data analysis: in Europe ESA has requested letters of interest regarding data analysis activities due 4 July 2005.
- As consequence of going into formulation the LISA International Science Team has been reappointed.
- LPF: technology precursor. Schedule is being consolidated. The consolidated schedule has launch in March 2009; this includes a six-month contingency. ESA LTP and NASA ST7. LTP is on-going its PDR: all requirements have so far been met. Things are technically going well.
- ST7: went through critical design review last September with serious cost & schedule over-runs. This led to a confirmation review. ESA offered ST7 a descoped version with computers and thrusters with inputs from LTP. At the

confirmation review ST7 was descope; however, NASA's Universe Division revived the full missions with management changes that brought supervision of ST7 under the LISA Project.

- An LPF launch date in 2009 puts LISA launch in 2014.

MiniGrail

- Financing: The Dean of the University of Leiden is providing 250KEuro this year and the project expects the same next year.
- Operations: At its last cool-down MiniGrail had a leak; nevertheless, measurements were made at 5K. MiniGrail has been working with double squid amplifiers at 100hbar sensitivity.

Schenberg

- The Schenberg Project is entering its sixth year of support. It expects to try first prototype transducers on the sphere at liquid He temperatures this year.

TAMA

- TAMA is at end of its current funding. The next grant will continue TAMA operations and propose DECIGO. The next TAMA observational run will take place after a seismic isolation upgrade; this upgrade will take one year to complete.

Virgo

- Virgo still in its commissioning phase. The project expects to reach design sensitivity near the end of 2006. Virgo's analysis working group is quite active, with collaborative work underway with LIGO and starting with ROG on joint analysis. Virgo is developing a white paper to define an advanced Virgo configuration to be implemented on the same timescale as advanced LIGO.

10:25 AM: LCGT REPORT (KURODA)

- The proposal to fund LCGT has been forwarded with favorable recommendations from ICRR to the University of Tokyo and from the University of Tokyo to the Ministry of Education. The Ministry of Education is currently evaluating the proposal with advice from the Science & Technology Council. It is expected to make its recommendation to the Ministry of Finance in August 2005. A final decision on funding the LCGT proposal is expected in December 2005.
- The LCGT Project is grateful to the GWIC for its strong letter of support, which contributed to the very positive recommendations by the ICRR Directory and the University of Tokyo President.

10:35 AM: COLLABORATIVE R&D: REVIEW OF COLLABORATIVE ACTIVITIES IN DATA ANALYSIS AND TECHNOLOGY DEVELOPMENT (INFORMATIONAL: ALL)

- Instrumentation & Technology
 - The ACIGA 80 meter high power laser test facility is currently being used in collaboration with LIGO to test thermal effects and associated instabilities in sapphire substrate test masses.
 - The ANU group is working with Caltech and MIT on the creation of squeezed states and their use in interferometers.
 - Adelaide is working on high power lasers with TAMA.
 - UWA is collaborating with LCGT on scattering in sapphire test masses
 - UWA is collaborating with VIRGO on the isolation of cryogenic mirrors.

- Data analysis:
 - ACIGA is participating in data analysis activity as a member of the LIGO Scientific Collaboration. The University of Western Australia group is also working on data analysis with Virgo. Environmental data from ANU is being studied in collaboration with LIGO, GEO and Virgo.
 - GEO-LIGO: continuing exchange & joint papers. New data exchange agreement makes LIGO & GEO one data set. Well-set for S5 science run.
 - VIRGO-LIGO-ACIGA are currently exchanging environmental data and are preparing for future exchanges.
 - The LIGO and TAMA data exchange and joint analysis, focusing on 60 days of data from spring '03, is near completion.
 - AURIGA and LIGO have exchanged 15 days of S3 data and are tuning analysis tools in anticipation of carrying-out a joint analysis.
 - LIGO and ALLEGRO are completing an analysis focusing on limiting the stochastic background at high (~900 Hz) frequency.
 - AURIGA, EXPLORER, NAUTILUS, and VIRGO are developing new methods for joint analysis of bursts and stochastic signals.
 - AURIGA and TAMA have signed an MoU for the exchange of data for joint analysis

10:50 AM: COFFEE BREAK

11:00 PM: PAST MEETINGS

11:00 – 11:15 AM: GWDAAW meeting (Mours)

- GWDAAW 2004 was held over 3.5 days in Annecy. The program included 81 talks and 28 posters. Of the 28 posters, approximately 15 were originally submitted as abstracts for oral presentations but were converted, at the request of the meeting organizers, into posters.
- The meeting proceedings will be published in a special edition of *Classical and Quantum Gravity*. Approximately 50 papers were submitted to the proceedings by the 31 March 2005 deadline. The review of the contributions is in progress and the issue is expected to close by the end of the summer.
- The 2005 GWDAAW will be held at the University Texas (Brownsville) from 14-17 December. The chair of the Scientific Organizing Committee is Mario Diaz.
- Three issues were raised for discussion
 - Some papers submitted to the proceedings volume were not suitable for publication in a refereed venue: either the quality was low or the content had already been published elsewhere. *Classical and Quantum Gravity* currently gives conference organizers the option of carrying out their own refereeing or having the journal editorial staff arrange the refereeing. Even when the editorial staff arranges for the refereeing the journal does not ask its referees for the same level of rigor in its review of conference proceedings as it does for regular journal contributions. It was suggested that the journal be asked to use the same standards for proceedings articles as are used for regular journal contributions.
 - The Scientific Organizing Committee did not have representation from all of the large detector groups. GWIC agreed that, while the organizing committee membership should not be prescribed, every effort should be made to insure that the committee consults with all of the major groups.
 - Action (Finn): Contact GWDAAW SOC chair and recommend that, while the committee need not include representatives from every project, every effort should be made by the committee to consult with the projects and insure that their interests and advice are taken into consideration in formulating the meeting program.
 - Are 81 talks in 3.5 days reasonable? GWIC discussed this question without reaching a consensus.

11:15 – 11:30 PM: *Amaldi 6 (Mio)*

Amaldi 6 has 183 registrants (167 early, 15 late, 1 invited). The meeting will include 77 oral presentations and 109 poster presentations for a total of 186 presentations. The data analysis session was heavily oversubscribed, with (20 oral and 29 poster presentations). On the other hand, the gravitational wave sources session was very undersubscribed.

The total budget for the meeting is 15,475,000 Yen.

The conference proceedings will be published by the Institute of Physics. Selected papers will be published in *Classical and Quantum Gravity*; however, most contributions will be published in the *Journal of Physics Conference Series*. The manuscript deadline is 31 August with publication expected by the end of May 2006.

11:35 AM – 12:00 PM: *CGWP Meetings (Imagining the Future: Gravitational Wave Astronomy, GravStat, Aspen Summer Workshop on LSA Data: Analysis, Sources and Science) (Finn)*

In the last year the Center for Gravitational Wave Physics sponsored three meetings of special interest to GWIC

- “Imagining the future: Gravitational Wave Astronomy” focused on the future of gravitational wave astronomy and its integration with other fields of astronomy. It had the format of a study group and a white paper report of the group consensus is in preparation. It is expected that this will be the first of a continuing series of meetings discussing the issues raised at the meeting.
- “GravStat: Statistics for Gravitational Wave Data Analysis” was a workshop on statistics (as opposed to data processing) for the interpretation of gravitational wave observations. It was the first attempt to bring together the broad community of statisticians with the community of gravitational wave data analysts. It is expected that this will be the first in a series of meetings on this topic that bring the gravitational wave and astro-statistics communities together.
- “Aspen Summer Workshop on LSA Data: Analysis, Sources and Science” was a three week summer workshop held immediately before the GWIC meeting (29 May – 19 June). It had close to 40 participants and focused entirely on LISA science and sources, with a small amount of data analysis discussed and no programatics. The meeting was notable for the large number of astrophysicists who attended and were very engaged in the opportunities presented by LISA observations. The organizers (Benacquista, Finn, Kalogera, Vecchio) expect to propose a follow-up workshop to the Aspen Center for summer 2007.

12:30 – 1:00 PM: *GWDAW (Finn for Diaz)*

GWDAW’05 will be held 14-17 December 2005 at the University of Texas (Brownsville). The first announcement is expected 30 July and a second announcement 1 September, which will also mark the start of registration.

Owing to the vital importance of global gravitational wave detector networks GWIC asks Finn to communicate to the GWDAA Scientific Organizing Committee chair that it would like to see a half-day session be set-aside at the forthcoming GWDAA meeting for a "mini-workshop" on global network data analysis. During this session GWIC would like to see reports from each of the several working groups that the projects have established to investigate the analysis of shared data, followed by an extended period for open discussion.

LISA 6 (Finn for Stebbins)

The next LISA Symposium will be held in Annapolis, Maryland, 26-30 June 2006.

GWIC discussed the growing separation between the ground and space-based detector communities and how they might be brought closer together. The Amaldi Meeting and the LISA Symposium have two conflicting agendas in this regard: on the one hand, each community needs time for focused technical discussions; on the other hand, each needs to make an effort to reach-out to the other with generally accessible presentations.

GWIC proposes that the LISA Symposium hosts two sessions on ground based gravitational wave detection with talks chosen accessible to the space-based detector community, and that the Amaldi meeting host two sessions on space-based gravitational wave detection, with talks chosen to be accessible to the ground-based community. Finn has the action to communicate this request to the LISA Scientific Organizing Committee Chair.

1:00 PM: PROPOSALS FOR HOSTING AMALDI 7

GWIC heard proposals for hosting Amaldi 7 in Sydney, Australia; Rio de Janeiro, Brazil; State College, Pennsylvania; and New Orleans, Louisiana. The Sydney proposal had the special feature of running the Amaldi Meeting in parallel with GR18, providing the opportunity to increase the gravitational wave community's visibility in the broader relativity community.

The proposed meeting schedule has the GR18 and Amaldi meeting together during the morning sessions. These will be populated with plenary talks that are to be generally accessible to both groups. Four one-hour plenary sessions are proposed to be reserved for the gravitational wave detection community. The Amaldi meeting will continue in the afternoon, where it will be regarded as a parallel session of the GR18 meeting. The Amaldi Meeting will have full liberty to schedule its afternoon time. To compensate for the shared time in the mornings the Amaldi Meeting is proposed to run one day longer than is usually scheduled: the final day would be Amaldi only.

While an international organizing committee generally chooses GR Society meeting plenary speakers, the GR Society President (Cliff Will) has informally agreed that the Amaldi Meeting organizers will be able to choose the four gravitational wave detection plenary speakers

GWIC unanimously agreed that the intellectual benefit of joining with GR meeting is a determining strength of the Sydney proposal and provisionally accepts the Sydney proposal, subject to certain assurances:

- A formal agreement with the GR Society President and the GR18 Scientific Organizers that the Amaldi Meeting organizing committee will decide on the four plenary speaker slots reserved for gravitational waves and their detection;
- To maintain the Amaldi Meetings identity, the Amaldi Meeting organizers will maintain a separate web site for the Amaldi Meeting, develop separate posters advertising the meeting, and have an independent organizing committee for program scheduling;

Coccia, McClelland, and Barish are charged with contacting the President of the GR Society and receiving the appropriate assurances that the Amaldi Meeting will control its own program and plenary speakers and maintain its identity.

2:15 PM: THEORETICAL NEEDS REPORT AND DISCUSSION (FINN FOR WILL)

Finn presented a summary of the report produced by Will and circulated to GWIC in early June. GWIC expressed its satisfaction with the report. To have the greatest impact a short, executive summary of the report should be available for the next bilateral meetings of the NSF and different European funding agencies, with a white paper to follow.

To be effective a white paper requires broader consultation, especially internationally and with the experimental and phenomenology communities, which were under-represented in the survey that led to this report. Additionally, the audience for the white paper must be carefully considered and the report written accordingly.

Kuroda points out that the white paper could have strong effect on LCGT funding and urges rapid progress.

Cerdonio has the action to work with Will to produce an executive summary soon and a white paper later.

2:40 PM: ACOUSTIC DETECTOR DEVELOPMENT PLAN REPORT (WHITCOMB)

Whitcomb and Coccia reported on the GWIC committee evaluation of the Resonant Mass Detector Technology Development Plan, authored by Bonaldi, Fafone and Gottardi. The report provides a comprehensive description of the current status of resonant detector research and development. The committee agrees unanimously that the science case presented is strong and recommends that GWIC endorse the report. (Subsequent to the meeting GWIC endorsed the report in an e-mail exchange.)

The resonant detector community intends to approach the different national funding agencies to secure funding to carry-out the research described in the report. GWIC offered several suggestions for how the community might prepare a coordinated plan for approaching the funding agencies with an eye toward a long-range program, as opposed to a series of proposals prepared sequentially. Such a plan would include a discussion of the key technologies that need to be developed, where the capabilities in the community reside, how the community is working together share technology and address key technology gaps, what the critical technology milestones are, the costs associated with the milestones, and a proposed schedule.

3:20 PM: STATISTICS COMMITTEE REPORT (FINN)

Finn reviewed the status of the Statistics sub-committee report. A draft report was circulated for comment in December 2003; however, no responses were received. GWIC agrees that the committee's work is important and asks that Finn circulate the draft report once again for comment.

3:35 PM: GLOBAL NETWORK COMMITTEE REPORT AND DISCUSSION (SAULSON)

Saulson reported on the work of the Global Network Committee (Saulson chair, Fujimoto, Mours, Prodi, Schutz). The committee has had some discussions by e-mail and some discussions between members, but no full meetings. The report presented has not been reviewed by the committee.

The committee began with five proposed recommendations:

- Make all data exchange memoranda of understanding publicly available on the GWIC web site
- Ask each project to make available the current state of each detector (i.e., is it taking science data) and access to the history of each detectors state.
- Appoint joint technical study teams to develop protocols for global network analysis.
- Investigate different ways of managing network analyses: i.e., integrated project teams, project based teams, competitive teams, etc.
- Discuss the consultation mechanisms that GWIC would like to encourage before the publicizing or publishing a detection claim.

GWIC agrees that the current memoranda of understanding describing the existing joint analyses should be made available on the GWIC web site. Finn will query GWIC members to get copies of these MoUs and see that they are posted.

GWIC also agrees that technical teams to study different kinds of network analyses should be assembled. Saulson will assemble these team(s) and GWIC will ask the GWDAA scientific organizing committee for a session where these teams can meet and discuss their work with the meeting participants. Finn has the action to contact the GWDAA Scientific Organizing Committee and ask for this session.

Barish pointed out that LIGO will enter a new phase of operation with the S5 science run. He is concerned that the current set of bilateral agreements that LIGO has with other projects may not be appropriate for this new phase, when the run duration may be as long as a year or more. For example, Virgo will come on-line during S5. Any agreements that are needed should be in-place before the run begins. Even if they are imperfect, agreements that have been made can be modified, while agreements that need to be made are more difficult to arrange during the run.

The consultation mechanism currently in place relies on submission to gr-qc and a waiting period for comments before submission to a journal. Since gr-qc is public this is not a sufficient degree of caution for a detection claim. Finn has the action to propose a

concrete set of guidelines based on the following principles: A team that has a detection claim or very relevant upper limit or indication makes a submission to GWIC, which provides a timestamp. GWIC members assure confidentiality and undertake to review the submission over a reasonable period of time (not less than three weeks). Following the period of review and comment submission to a journal takes place.

CLOSE-OUT

The next GWIC meeting will take place at the International LISA Symposium in June 2006. Finn will coordinate with the LISA organizers to insure that the meeting takes place and does not conflict with other meetings, also taking place at the LISA Symposium (e.g., the LISA International Science Team Meeting).