

Gravitational Wave International Committee

report to PaNAGIC

23 June 2009

(prepared by Stan Whitcomb, Caltech [Secretary] and Jim Hough, University of Glasgow [Chair])

The Gravitational Wave International Committee (GWIC) was formed in 1997 to facilitate international collaboration and cooperation in the construction, operation and use of the major gravitational wave detection facilities world-wide. The membership of GWIC represents all of the world's active gravitational wave projects. In 2008, GWIC invited the three pulsar timing collaborations which are searching for very low frequency gravitational waves to join, so now it represents projects covering gravitational wave frequencies from nanohertz to kilo hertz. Each project has either one or two members on GWIC depending on size. Because the GWIC representatives are generally the leaders of each project, GWIC has access to broad expertise from throughout the community. GWIC also includes representation from the International Society on General Relativity and Gravitation and from the astrophysics/theoretical relativity community. GWIC meets annually, with recent meetings in New York City (2009), Pisa (2008), Sydney (2007), and Maryland (2006).

GWIC Activities in 2008-2009

GWIC convenes the biennial Edoardo Amaldi Conferences on Gravitational Waves, sponsored by IUPAP as a "class B" Conference. The Amaldi meeting is considered by many in the gravitational wave community to be their most important international gathering. The members of GWIC serve as the Scientific Organizing Committee for the Amaldi meetings. The 8th Amaldi meeting was held at Columbia University from June 21-26, 2009, and was attended by 300 scientists and students.

GWIC also supports the biennial LISA Symposium, and two workshop series, on data analysis and on advanced detectors. The next LISA Symposium will be at Stanford University in June 2010.

In 2006, GWIC established an international prize, to be awarded annually to an outstanding Ph. D. thesis based on research in gravitational waves. The 2009 Prize was awarded at the Amaldi meeting in New York City. The number of theses nominated has grown every year since the prize was established, and students from nine different countries have been nominated since 2006, demonstrating the growing international interest in gravitational waves.

In 2007, GWIC appointed a subcommittee to prepare a global road-map for the field of gravitational wave science, with the perspective to optimize the global science in the field. The charge to the committee is to cover both ground- and space-based detectors with a 30-year horizon. The committee obtained broad input from the communities

involved to identify relevant science opportunities and the facilities needed to address them. At its June 2009 meeting, GWIC accepted the draft report (http://gwic.ligo.org/roadmap/Roadmap_050609.pdf), subject to some minor revisions. GWIC has already begun to implement some of the recommendations contained in the roadmap.

During 2008/9 GWIC provided support to the LCGT project by means of a letter of recommendation to the relevant funding authority and by helping with the program for the 58th Fujihara seminar "World-wide Network for Gravitational Wave Observation" held near Tokyo in May 2009. Further a letter of support for the ICRR in Tokyo to attest to the excellence of its research and its importance as a stand-alone institute was provided to the Director, for use as part of a review of research establishments/universities in Japan.

Membership of GWIC

ACIGA: Jesper Munch

ALLEGRO: William O. Hamilton

AURIGA: Massimo Cerdonio

Einstein Telescope: Michele Punturo

EXPLORER/NAUTILUS: Eugenio Coccia

European Pulsar Timing Array (EPTA): Michael Kramer

GEO 600: Karsten Danzmann, James Hough (Chair)

LIGO, including the LSC: Jay Marx, David Reitze

LISA: Thomas Prince, Bernard Schutz, Robin Stebbins, Stefano Vitale

MiniGRAIL and other Spherical Acoustic Detectors: Giorgio Frossati

NANOGrav: Andrea Lommen

Parkes Pulsar Timing Array (PPTA): Dick Manchester

TAMA/CLIO/LCGT: Seiji Kawamura, Kazuaki Kuroda

VIRGO: Francesco Fidecaro, Benoit Mours

Theory Community: Clifford Will

Executive Secretary: Stan Whitcomb