

GWIC

*Gravitational Wave International
Committee*

Report to PaNAGIC

9-Sept-03

International Conferences

sponsored by GWIC

- **AMALDI Conference (odd years - location rotates world-wide)**
 - » Primary conference in gravitational-wave physics and detection
 - » Terrestrial; Space; Theory; Sources; and Techniques
 - » Next Conference: **July 03 Pisa; July 05 in Japan**
- **GWDAA Workshop - Data Analysis (yearly - location rotates)**
 - » Gravitational Wave Data Analysis Workshop
 - » Techniques in Data Analysis, Computing and Networking
 - » Next Meeting: **Dec 02 Japan; Dec 03 in Milwaukee**
- **Aspen Meeting - Techniques (yearly - rotates Aspen / Europe)**
 - » Advanced Detector Workshop
 - » Techniques for advanced detectors
 - » Next Meeting: **Winter 04 in Aspen ; Winter 05 Elba**

World-wide *gravitational wave network*

- GWIC is working with the gravitational wave projects toward developing an eventual worldwide network for gravitational wave detection.
- The 5 “bar” detectors: **IGEC**
 - **ALLEGRO** (NSF- Baton Rouge), **AURIGA** (INFN – LNL), **EXPLORER** (INFN-CERN), **NAUTILUS** (INFN- LNF), **NIOBE** (ARC- Perth) exchanged and analyzed their 1997-2000 data under an agreement coordinated through GWIC
 - They collaboratively searched for coincidental gravitational wave bursts in the Galaxy in control of false alarm/false dismissal probabilities to get, at > 95% confidence level, upper limits of < few/yr for violent events > $0.02 M_{sun}$ converted into gravitational waves at the Galactic Center distance .

World-wide ***gravitational wave network***

- **GWIC is helping with steps toward a world-wide network including the large interferometers. So far, bi-lateral exchanges**
 - » **GEO - LIGO for the S1 data run (17 days Sept 02). Joint upper limits presented at this conference. (Joint papers recently posted on gr-qc).**
 - » **TAMA - LIGO exchange data for S2 data (60 days Spring 03). Small joint working group to coordinate the joint analysis.**
 - » **Virgo and LIGO exchanging environmental data, and Virgo preparing for future gravitational data exchange.**
- **GWIC Meeting at Amaldi Meeting (July 03):**
 - » **Create a working group on statistical methods for gravitational wave data analysis**
 - » **Developing guidelines for presenting results leading to publications on new results**

World-wide ***gravitational wave network***

- **GWIC Meeting at Amaldi Meeting (July 03):**
 - » **Create a working group on statistical methods for gravitational wave data analysis**
 - » **Developing guidelines for presenting results leading to publications on new results**
- **Elected a new GWIC chair for 2003-05**

Massimo Cerdonio