Amaldi 5

GWIC Report by B Barish, chair
GWIC

gravitational wave international committee

- International Union of Physics and Applied Physics (IUPAP)
  - 21 Commissions -- C4 Cosmic Rays
  - 2 Associated Commissions-- AC2 General Relativity
  - 3 Working Groups: ICFA; PaNAGIC and Women in Physics
  - Highest level international body of scientists internationally

- “Particle and Nuclear Astrophysics and Gravitation International Committee” (PaNAGIC)
  - Working group attached to C4
  - PaNAGIC Working groups:
    - GWIC
    - HENAP
  - Bi-Annual Meeting
  - TAUP - Sept 02 - Seattle

Support international exchange of ideas and help in the convergence of the international scientific community in the large scale activity in the emerging field of particle and nuclear astrophysics, gravitation and cosmology.
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: Summer 05 in Japan

- **GWDAW Workshop (yearly - location rotates)**
  - Gravitational Wave Data Analysis Workshop
  - Techniques in Data Analysis, Computing and Networking
  - Next Meeting: Dec 03 in Milwaukee

- **Aspen Meeting (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

- GWIC is helping coordinate activities for gravitational wave detectors toward a grid computing environment
  - The grid distributed computing philosophy is well suited to a broad world-wide collaboration
  - Interfaces to existing software systems and tests are underway
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 after the conference.
  - 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.

- Yesterday’s GWIC Meeting:
  - Create a working group on statistical methods for gravitational wave data analysis
  - Developing guidelines for presenting results leading to publications on new results