

Memorandum of Understanding
between the
Michigan Gravity Wave Group(MGWG) in the Department of Physics of the
University of Michigan
and the
Laser Interferometer Gravitational Wave Observatory (LIGO) Project
December 20, 1995

The purpose of this Memorandum of Understanding is to establish and define a collaborative relationship between the Michigan Gravity Wave Group(MGWG) in the Department of Physics of the University of Michigan and the Laser Interferometer Gravitational Wave Observatory (LIGO) Project. Both parties to this agreement share the goals of observing gravitational radiation and subsequently using gravitational radiation as an astrophysical probe. This agreement is intended to further these joint goals.

1. The Gravity Wave Group(MGWG) in the Department of Physics of the University of Michigan is a new group consisting of Richard Gustafson, Keith Riles, and potential students and postdoctoral associates with roots in Particle and Astro-Particle Physics. The goal of the MGWG is to detect gravity waves and use them to obtain information about the astrophysical sources that produce them, by initially working actively in the LIGO 40m R&D program. The MGWG has expertise in the areas of electronics and debugging, fabrication, data analysis, as well as cryogenic, SQUID, and shielding experience.
2. The Laser Interferometer Gravitational-Wave Observatory (LIGO) Project is aimed at opening the field of gravitational-wave astrophysics through the direct detection of gravitational waves. LIGO detectors will use laser interferometry to measure the distortions of the space between free masses induced by passing gravitational waves. The design, construction, and operation of LIGO is being carried out by scientists, engineers, and staff at the California Institute of Technology (Caltech) and the Massachusetts Institute of Technology (MIT). Caltech has prime responsibility for the project under the terms of a Cooperative Agreement¹ with the National Science Foundation (NSF). LIGO will become a national facility for gravitational-wave research, providing opportunities for the broader scientific community to participate in detector development, observations and data analysis. LIGO welcomes the participation of outside scientists at any of these levels. LIGO is being constructed in a phased approach beginning with one three-interferometer detector system and evolving to a nine-interferometer configuration to enable simultaneous use by several gravitational-wave observation systems.

1. Cooperative Agreement No. PHY-9210038 between the National Science Foundation, Washington, D.C. 20550 and the California Institute of Technology, Pasadena, CA 91125, dated May 1992.

3. In entering into this Memorandum of Understanding, the LIGO Project will carry out its responsibilities following the requirements of the Cooperative Agreement¹.
4. The LIGO Project is responsible for obtaining NSF approval of all collaborative Memoranda of Understanding with international partners, or involving NSF costs exceeding \$100,000. All Memoranda of Understanding will be provided to NSF for their information.
5. This Memorandum of Understanding will remain in force until the parties mutually agree to terminate it. An annual Attachment will define specific activities to be carried out during the following year.

Approved:

Barry Barish

Barry Barish
LIGO Principal Investigator

12/20/95

Date

Ctirad Uher

Ctirad Uher
Chair, Department of Physics

1/4/96

Date

Alan Walter Steiss

Alan Walter Steiss
Director, Div. of Research Development
and Administration

1/3/96

Date