

Attachment OUT to the
Memorandum of Understanding (LIGO-M 0503010 -00-M)
between the
Department of Physics of Southern University and A&M College (SUBR Physics)
and the
Laser Interferometer Gravitational Wave Observatory (LIGO)
August 15, 2006

This Attachment OUT to the Memorandum of Understanding LIGO-M 0503010 -00-M defines the role of the **Department of Physics of Southern University and A&M College** as a Member of the LIGO Scientific Collaboration (LSC) in support of Educational and Outreach to the broader community. The period of performance for the activities in this Attachment is from August 15, 2006 to August 15, 2007.

1. **Education and Outreach** - As a frontier physics effort, LIGO offers a unique opportunity to inspire interest in science among students and to educate the broader community. The LIGO Laboratory supports a broad program of education and outreach to take advantage of these opportunities. Activities to attract and educate visitors take place at both Observatories, as well as the development of educational materials for use there and elsewhere. The LIGO Laboratory is building a Science Education Center at the Livingston Observatory, and is participating with local partners to make it a vehicle for science education throughout the region. LSC groups are invited to participate in these activities, and to suggest others, with the goal of leveraging activities to make a greater impact. MOU Attachments define the roles and responsibilities of groups in this development group.

2. During the period August 15, 2006 to August 15, 2007, the members of **SUBR Physics** will participate in Education and Outreach in the following areas:

a) Educational Materials Developed

The SUBR Physics Group will continue its introductory physics course redesign activities leading to changes in course content, improved syllabi, and newly developed educational materials during the academic year. Six courses that are required by the science education physics education curricula are being infused with inquiry-based lecture, recitation and laboratory activities that are closely tied to the interactive exhibits housed at SUBR and LLO.

b) Other Contributions

The SUBR Physics Group will participate in professional development workshops aimed at PK-12 teachers at various times throughout the above period. These workshops include, but are not limited to ten, (10) planned weekend workshops to be carried out as part of the, "Modeling Inquiry Science Education (MISE)" project at SUBR. Extensive use will be made of the LIGO Exploratorium exhibits housed at SUBR and LLO in this effort.

3. Resource Sharing: The LIGO Laboratory will contribute resources including allocation of appropriate scientific and engineering personnel, research facilities and funding in support of the effort in Item No. 2, as indicated below.
 - a) Research accommodations for **SUBR Physics** group members while on LIGO research assignment at any LIGO Laboratory site,
 - b) Access to LIGO data through established LSC channels in support of this work.
 - c) Access to the interactive exhibits and workshop space housed at the LIGO Livingston site.


4. Coordination and Reporting -

SUBR Physics will perform this research within the structures established by the LIGO Laboratory and the LSC where appropriate. In particular activities described in Item 2 will be carried out with the LIGO Observatories Educational and Outreach Leaders. Coordination will include keeping the Group leaders informed of activities and plans, reporting to the group at meetings and telecons, and through technical documents submitted to the LIGO Document Control Center.

In addition, an annual report will be submitted with the update to this Attachment, giving a summary status on research by topic as indicated in Item No. 2, including progress against the milestones if any, significant accomplishments such as new insights/discoveries or publications, issues of concern if any, and an indication of invested time. This Attachment will be updated at least annually with a plan of activities for the succeeding on-year period. These documents will be due one month before the close of the period of performance under this Attachment.

5. All computer code delivered to the LSC under this Attachment must be developed in consultation with the LSC Data Analysis Software Working Group (DASWG) and archived, documented and reviewed as determined by that group.

Approved:



Jay Marx
LIGO Laboratory Director



Stephen C. McGuire
Principal Investigator
Department of Physics of Southern University



Peter Saulson
LSC Spokesperson