

Attachment LAS to the
Memorandum of Understanding (LIGO-M 060011 -00-M)
between the
Louisiana State University Experimental Relativity Group (LSUERG)
and the
Laser Interferometer Gravitational Wave Observatory (LIGO)
August 15, 2006

This Attachment LAS to the Memorandum of Understanding LIGO-M 060011 -00-M defines the role of the **Louisiana State University Experimental Relativity Group** as a Member of the LIGO Scientific Collaboration (LSC) and a member of the Lasers Development Group (LDG). The period of performance for the activities in this Attachment is from August 15, 2006 to August 15, 2007.

1. Lasers Development Group - The Lasers Development Group (LDG) is the scientific collaboration for defining and developing future high power lasers for use in advanced subsystems for the initial LIGO interferometers or in entirely new advanced interferometers. 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 **LSUERG** will participate in in LDG in the following areas:

a) Laser Development

Rupal Amin plans to carry out his Ph.D. research at LIGO Livingston on the topic of reducing LIGO's noise floor by employing higher laser power, will collaborate with David Ottaway and others at MIT, and in cooperation with the LSC lasers technical working group, to test this amplifier as a candidate for an incremental power upgrade. The laser amplifier is now installed in LLO's optics lab and is being used with the spare MOPA for continued testing.

b) Other Contributions

Not Applicable

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 **LSUERG** 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) Not Applicable

4. Coordination and Reporting -

LSUERG 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 within the Lasers Development Working Group of the LSC. 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

Gabriela Gonzalez
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