

**Attachment DAT to the
Memorandum of Understanding (LIGO-M050370-00-M)
between the
Columbia Experimental Gravity Group (GEC0)
and the
Laser Interferometer Gravitational Wave Observatory (LIGO)
August 15, 2005**

This Attachment DAT to the Memorandum of Understanding LIGO-M050370-00-M defines the role of the Columbia Experimental Gravity Group (GEC0) as a Member of the LIGO Scientific Collaboration (LSC), in particular, its activities in data analysis in support of the initial LIGO interferometers. The period of performance for the activities in this Attachment is from August 15, 2005 to August 15, 2006.

1. Together, the LIGO Laboratory and the LIGO Scientific Collaboration are responsible for implementing and exploiting the initial LIGO detector through its science data runs. The LSC has organized the data analysis effort into search groups which coordinate the analyses, perform detailed reviews, and prepare publications on behalf of the collaboration. LSC groups are encouraged to participate in one or more of these groups. MOU Attachments define the contributions of each participating group to the data analysis groups.
2. During the period August 15, 2005 to August 15, 2006, the members of GEC0 Group will participate in the analysis of initial LIGO data in the following areas:

Astrophysical trigger based analysis:

- Coordination of the work of the Extrig group
 - Triggered, prompt analysis (starts ~<45 minutes after the trigger) takes less than 12 hours to get the preliminary results and nominally 24-36 hours to have an executive summary (depending on human schedule)
 - Search for short duration GW signatures of GRBs during S5
 - Search for long duration GW signatures of GRBs based on models by Maurice van Putten and Rafael Araya-Gochez during S5
 - Complete the analysis of SGR-1806 using the available AstroWatch data
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 GEC0 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.

4. Coordination and Reporting – GEC Co Group 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 LSC Burst Search Group. 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:

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