

**MEMORANDUM OF UNDERSTANDING BETWEEN  
THE LIGO SCIENTIFIC COLLABORATION AND SCIENCE CENTRAL**

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The Laser Interferometer Gravitational-Wave Observatory (LIGO) is a facility dedicated to the detection of cosmic gravitational waves and the measurement of these waves for scientific research. It consists of two widely separated installations within the United States, operated in unison as a single observatory. LIGO is available for use by the world scientific community, and is a vital member in a developing global network of gravitational wave observatories.

The LIGO Scientific Collaboration ("LSC") developed and produced a dynamic, engaging traveling display relating to gravitational waves and the scientific research being conducted at the LIGO observatories (the "Exhibit") with funding from National Science Foundation through the University of Mississippi.

The LSC, The University of Mississippi, P.O. Box 1848, University, MS 38677, and Science Central ("SC") 1950 North Clinton Street, Fort Wayne, IN 46805, wish to collaborate on the display of a traveling exhibit with the goal of broadening the community of people interested in science and encouraging interest in science among young people in a mutually beneficial manner, according to the following understanding.

**1. Term.**

1.a). The term of collaboration and performance of the activities contemplated in this Memorandum of Understanding ("MOU") is from March 23<sup>rd</sup>, 2011 to January 31<sup>st</sup>, 2012. This period may be modified by mutual agreement in writing.

**2. Venue.**

2.a). SC will host the Exhibit at a suitable mutually approved indoor public location (the "Venue") from September 8<sup>th</sup>, 2011 to January 6<sup>th</sup>, 2012. In order to maintain consistency with the exhibit design, LSC will have the right to approve the Venue and Venue signage as pertains to the Exhibit. SC will keep LSC informed on a regular basis regarding plans and status for the preparation of the venue to enable LSC to provide timely feedback and approvals.

2.b). SC will be solely responsible for providing the Venue. The Venue must conform to the following minimum characteristics:

1. Minimum square footage of approximately 1200 sq. ft., 40'-0" (w) × 25'-0" (d).
2. Minimum height clearance of 10'-0".

3. Access entry with minimum linear dimensions of 7'-0" (h) × 5'-0" (w).
4. Be equipped with eleven standard working 120 V, 20 Amp electric outlets on the peripheral walls. SC will be solely responsible for providing electric power for set up, test, tear-down and public display of the Exhibit.
5. Include clean storage space for storing Exhibit packing material and casing during the display.

**3. Security and Insurance.**

3.a).SC will offer security measures against foreseeable damage, vandalism and theft by providing access-restrictions to the Venue (such as locked rooms, security cameras) during closing hours, but otherwise be in a trafficked area for maximizing public access during opening hours. SC will be responsible for any damages, theft, or vandalism incurred while the Exhibit is on its premises.

3.b).SC must have in force or obtain a commercial general liability insurance policy with a per-occurrence limit of no less than \$1,000,000 combined single limit for bodily injury and property damage and a \$2,000,000 aggregate where applicable. This should be a valid policy from a Mississippi and Indiana licensed Property and Casualty Broker, naming the following entity as additional insured:

The University of Mississippi  
1 Jeanette Phillips Dr.  
PO Box 1848  
University, MS 38677-1848  
USA

The liability policy must be in force for the entire duration of the display, set-up and tear-down phases. Only original certificates of insurance will be accepted and they must be signed by an authorized individual. The insurance obligation shall in no way relieve SC of her indemnity obligation to the University of Mississippi.

**4. Exhibit Set-up, Testing and Tear-down.**

- 4.a).SC will provide to LSC access to the Venue for unloading, setting up, testing, taking down and loading out the Exhibit up to five days before and after the display dates listed in Art. 2.a.
- 4.b).SC will provide a skilled working crew of minimum five people during unload, set-up, test, tear-down and load out of the exhibit (the "crew"). The crew will not be otherwise affiliated by any means with the University of Mississippi nor the

LSC. SC will be solely responsible for any labor compensation, wages or any other costs related to work performed by the crew. The University of Mississippi and LSC will not be held responsible nor liable for any bodily injury of crew members.

4.c).SC will provide scaffolding and a minimum of one electric scissor lift with working height up to 18' during set-up, test, and tear-down. SC will also provide a set of common tools for set-up and tear-down (such as electric drill, screwdrivers, wrenches, hammers, etc.)

**5. Transportation.**

5.a).SC will bear all related costs for load at origin and inbound transportation of the Exhibit from its storage location in the contiguous United States to the Venue. LSC has provided a quote for transportation by Trade Show Technologies (TTI), Inc., 1 Dodge Dr., West Caldwell, New Jersey 07006 (contact: Jeffrey Rossier, Jeff@tstechnologies.com). The current estimate of the cost of transportation is \$1,929.76 (exclusive of labor required for load out of exhibit and all related components at origin.) SC is under no obligation to use TTI, but LSC reserves the right to approve any carrier chosen by SC at its sole discretion. SC will be solely responsible for further negotiations with, and timely payment to the carrier.

**6. Educational Outreach.**

LSC and SC will cooperate on educational outreach related to the Exhibit in the following way:

6.a).Upon request by SC, a LSC scientist (name TBD) will deliver a public lecture (the "Lecture") on gravitational waves and LIGO research (title TBD) at a mutually approved time and location. LSC will bear the cost of travel and stay of the LSC scientist. SC will be solely responsible for the procurement of a suitable venue and for any reasonable equipment which is necessary for the delivery of the Lecture.

6.b).To the extent allowed by available time and resources, SC and LSC will work together to organize additional outreach activities (TBD).

**7. Publicity and Marketing.**

7.a).LSC and SC will work together to schedule the Exhibit opening, to build public visibility and attendance at the Exhibit, and ensure consistency with other planned LSC events.

7.b).SC will be responsible for locally advertising the Exhibit and additional outreach activities in consultation with LSC and in a manner consistent with its advertising strategy. At its discretion, LSC reserves the right to independently market and

advertise the Exhibit. LSC may provide additional local publicity for the Exhibit and the Lecture in coordination with SC. LSC and SC will permit each other to use their respective names and logos in connection with publicizing the Exhibit and additional outreach activities, provided that all such uses are approved in advance, and all related texts shall be approved by both partners.

**8. Acknowledgment of Collaboration.**

8.a).SC will acknowledge its collaboration with LSC in a prominent manner at the Exhibit and ancillary activities, in all publicity relating specifically to these events, and in an appropriate location on the SC website leading up to and including the dates of the Exhibit. LSC will also acknowledge its collaboration with SC in a prominent manner in all publicity relating to the Exhibit, and in all reports relating to the Exhibit. To the extent allowed by available time and resources, SC and LSC will work together to develop additional, appropriate ways of publicizing their collaboration.

**9. Intellectual Property and Licenses.**

9.a).LSC will retain all rights in and to the Exhibit. In addition to the uses described in Paragraph 6, the parties will permit each other on a non-exclusive basis to use a reasonable number of photographs, clips of video footage and other documentation of the Exhibit (subject to any applicable third party rights) for their respective educational purposes and promotional purposes, including mutually approved use on each party's website (with appropriate crediting and where possible a link to the other party's website) and in relevant reports to funders, regulators and other entities.

**10. Cancellation/Postponement.**

10.a).In the unlikely event that the Exhibit display must be postponed or canceled due to events beyond the reasonable control of either LSC or SC, the Parties will work together to agree on a mutually acceptable schedule for performance of their respective obligations, taking into account the nature of the reasons for cancellation or postponement.

**11. Entire MOU**

11.a).This MOU represents the entire and integrated agreement between LSC and SC and supersedes all prior negotiations, representations, or agreements, either written or oral. This MOU may be amended only by written instrument signed by both LSC and SC. SC confirms that the signor of this MOU is indeed an authorized representative of SC. By signing this MOU SC agrees that payments due per the MOU terms are SC responsibility to pay.

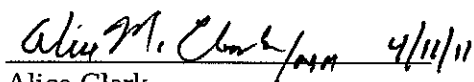
**12. Compliance with Laws.**

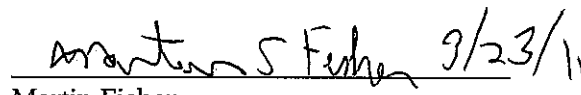
12.a). In performing this MOU, SC, LSC and the University of Mississippi will comply with all applicable laws, regulations, rules and other requirements of any governmental authority having jurisdiction. Any and all permits required in the occurrence of set-up, testing, display and tear-down of the exhibit will be SC responsibility, exclusively, to obtain and maintain. It is understood that the University of Mississippi agrees to this MOU to the extent it is authorized to do so under Mississippi law.

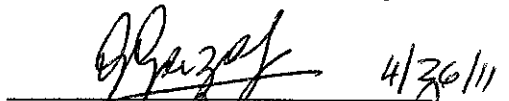
**13. Changes, Additions, Stipulations or Lining Out.**

13.a). Additions, stipulations, or deletions including corrective lining out by either LSC or SC will not be considered agreed to or binding on the other unless such modifications have been initialed or otherwise approved in writing by the other.


**APPROVED:**

  
Alice Clark  
University of Mississippi Vice Chancellor  
for Research & Sponsored Programs

  
Martin Fisher  
Executive Director, Science Central

  
David Reitze **GABRIELA GONZALEZ**  
Spokesperson, LIGO Scientific Collaboration

**ACKNOWLEDGED:**

  
Marco Cavaglia  
Chair, LSC Education and Public Outreach,  
PI, Astronomy's New Messengers Project