

**MEMORANDUM OF UNDERSTANDING BETWEEN  
THE LIGO SCIENTIFIC COLLABORATION AND SHAWNEE STATE UNIVERSITY**

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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 Shawnee State University ("SSU") 940 Second Street, Portsmouth, Ohio 45662-4344, 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 7<sup>th</sup>, 2011 to September 30<sup>th</sup>, 2011. This period may be modified by mutual agreement in writing.

**2. Venue.**

2.a). SSU will host the Exhibit at a suitable mutually approved indoor public location (the "Venue") from April 11<sup>th</sup>, 2011 to August 29<sup>th</sup>, 2011. 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. SSU 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). SSU 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 17'-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. SSU 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).SSU 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. SSU will be responsible for any damages, theft, or vandalism incurred while the Exhibit is on its premises.

3.b).SSU 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 Ohio 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.

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

- 4.a).SSU will provide to LSC access to the Venue for setting up, testing, and taking down the Exhibit up to five days before and after the display dates listed in Art. 2.a.
- 4.b).SSU will provide a skilled working crew of minimum five people for set-up, testing, tear-down, and unload from/load to commercial trailer of the Exhibit (the "crew"). The crew will not be otherwise affiliated by any means with the University of Mississippi nor the LSC. SSU 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).SSU will provide scaffolding and a minimum of one electric scissor lift with working height up to 18' during set-up, test, and tear-down. SSU 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).SSU will bear all related costs for load at origin and inbound transportation of the Exhibit from its present storage location, Dimensional Communications Inc., 173 Ludlow Avenue Northvale, New Jersey 07647-2305, 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 \$3,444.32 (inclusive of \$1,200.00 for all labor required for load out of exhibit and all related components at origin.) SSU is under no obligation to use TTI, but LSC reserves the right to approve any carrier chosen by SSU at its sole discretion. SSU will be solely responsible for further negotiations with, and timely payment to the carrier. LSC will bear all related costs for outbound transportation of the Exhibit.

**6. Educational Outreach.**

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

6.a).Upon request by SSU, 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. SSU 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, SSU and LSC will work together to organize additional outreach activities (TBD).

**7. Publicity and Marketing.**

7.a).LSC and SSU 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).SSU 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. LSC must approve all references to the Exhibit and ancillary activities included in such advertising. 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 SSU. LSC and SSU 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).SSU 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 SSU website leading up to and including the dates of the Exhibit. LSC will also acknowledge its collaboration with SSU 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, SSU 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 SSU, 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 SSU 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 SSU. SSU confirms that the signor of this MOU is indeed an

authorized representative of SSU. By signing this MOU SSU agrees that payments due per the MOU terms are SSU responsibility to pay.


**12. Compliance with Laws.**

12.a). In performing this MOU, SSU, 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 SSU responsibility, exclusively, to obtain and maintain. It is understood that the University of Mississippi and SSU agree to this MOU to the extent they are authorized to do so under Mississippi law and Ohio law, respectively.


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


13.a). Additions, stipulations, or deletions including corrective lining out by either LSC or SSU 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:**


 3/7/11  
Alice Clark  
University of Mississippi Vice Chancellor  
for Research & Sponsored Programs

 3-8-11  
Elinda C. Boyles  
SSU Vice President for Finance & Administration

 3/9/11  
David Reitze  
Spokesperson, LIGO Scientific  
Collaboration

 3-8-11  
David E. Todt  
SSU Provost and Vice President for Academic  
Affairs

**ACKNOWLEDGED:**

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

