LIGO Internship FAQ's

Who is eligible to apply for LIGO's internship program?

Undergraduates at any U.S. or foreign institution may apply. Graduating seniors are not eligible to participate.

Who should apply?

LIGO is looking for motivated students who are interested in participating n a cutting-edge physics research program. Projects are available in experiment, theory and data analysis. Students from groups that are underrepresented in technical fields are particularly encouraged to apply.

What is the length of the program?

Student internships usually span ten weeks (sometimes longer), typically starting near June 15 and concluding near August 20. Start/stop dates may be somewhat flexible.

Where can program applications be found?

Applications can be downloaded from the LIGO Undergraduate Research Web site (see "Program and Contact" panel for the URL).

What is the application deadline?

The application deadline is typically in mid-February. Check the LIGO Undergraduate Research Web site to confirm the date.

Are freshman/sophomore students seriously considered for internships?

Many projects benefit from a physics background beyond the sophomore level. In most years, however, one or more first or second year students receive appointments.

LIGO

Program and Contact Information

Use the URL below to find more on the LIGO internship program. You'll see additional details and a link to program applications. Application deadlines and program dates change from year to year; check the Web site for current information.

LIGO Undergraduate Research Web Site

www.ligo.caltech.edu /LIGO_web/students/undergrads.html

Additional Information

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LIGO on the Web

LIGO: www.ligo.org
LIGO Laboratory: www.ligo.caltech.edu
LIGO Hanford: www.ligo-wa.caltech.edu
LIGO Livingston: www.ligo-la.caltech.edu

2009

LIGO

Laser Interferometer Gravitational-wave Observatory

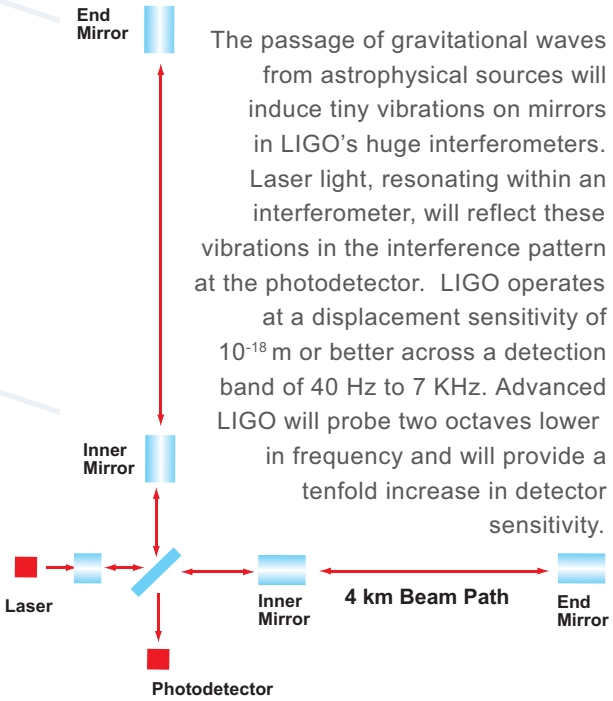
Undergraduate Research

at the forefront of gravitational wave physics

LIGO is operated by the California Institute of Technology and the Massachusetts Institute of Technology for the National Science Foundation

LIGO

LIGO Observatories in Louisiana and Washington will let us watch as black holes are born . . .



The passage of gravitational waves from astrophysical sources will induce tiny vibrations on mirrors in LIGO's huge interferometers. Laser light, resonating within an interferometer, will reflect these vibrations in the interference pattern at the photodetector. LIGO operates at a displacement sensitivity of 10^{-18} m or better across a detection band of 40 Hz to 7 KHz. Advanced LIGO will probe two octaves lower in frequency and will provide a tenfold increase in detector sensitivity.

Undergraduates from any U.S. or foreign institution may apply for a LIGO summer internship. This intensive summer program, funded in part by a NSF REU grant, places interns at the two LIGO Observatory sites and at the LIGO Laboratory at Caltech.

LIGO science

spans a broad spectrum of the physical sciences and engineering. Students pursuing degrees in physics, astronomy, mechanical or electrical engineering, computer science, applied mathematics and related disciplines may find projects relevant to their majors.

LIGO research projects

cover many areas of science and engineering related to the detection of gravitational radiation. Examples include

- Laboratory projects in mechanical, laser, optical, and electronic systems
- Modeling and analysis of optomechanical systems
- Software development projects
- Modeling of astrophysical sources of gravitational radiation

In close collaboration with their mentors, student interns undertake work that supports improvements in detector performance and in data analysis.

Student interns

in the LIGO summer program receive a $6,000 stipend with an additional allowance for travel to and from the appointment locations. Interns whose projects will occur in the LIGO Laboratory on the Caltech campus are eligible to use Caltech student housing during the program at a cost that is roughly 30% of the stipend amount. A campus cafeteria is available. Housing at the Hanford and Livingston Observatories will be provided at a cost that is comparable to the Caltech housing rate. Daily transportation to and from the sites will be provided or arranged at no additional cost.