

Applications are invited for internships at a large grid-computing center located at the **International Centre for Theoretical Sciences, Tata Institute of Fundamental Research (ICTS-TIFR)**, Bangalore. This computing center is dedicated to the storage and analysis of the data collected by the LIGO observatories -- a major international effort dedicated to the first detection of **gravitational waves**. Predicted by Albert Einstein as a consequence of his general theory of relativity, gravitational waves are ripples in space-time produced by violent events in the distant Universe, such as the collision of two black holes. Observation of gravitational waves is expected to open a new window to the Universe.

The **Astrophysical Relativity** research group at ICTS-TIFR is part of the LIGO Scientific Collaboration -- a group of some 950 scientists from 16 countries involved in the commissioning of the LIGO instruments and in analyzing the data to make discoveries. Gravitational-wave data analysis is computationally intensive, and is performed at large computing clusters located at different parts of the globe, which form the LIGO data grid. The facility that is being set up at ICTS-TIFR will start as a **Tier-3 grid computing center** and will be upgraded to a Tier-2 center in the next two years.

The computing cluster at ICTS-TIFR will feature 25 teraflops of peak computing power and 200 terabytes of dedicated storage -- **one of the biggest of its kind in India**. Interns will have the opportunity to work with **cutting-edge grid-computing technologies**, high-performance file systems and storage solutions, high-throughput computing frameworks, federated identity solutions, etc., and to interact closely with the scientists working on big data.

Applicants are expected to have a degree in science or engineering with **very strong background and experience in computing** (especially, in unix-based systems). Strong background in C programming, scripting in Bash, Python and Perl, experience in administering unix-systems, MySQL databases, etc., will be especially appreciated. Final-year BTech/ BE/ MTech/MS students who are interested in doing this internship as part of their course requirements are also encouraged to apply. Selected interns will be provided an appropriate stipend based on their background and qualification. Initial appointments will be for 1 year, which could be further extended for the case of interns demonstrating talent and dedication.

Apply online <http://www.icts.res.in/jobs/computing>  
Deadline **30 June 2015**



Internships at the **LIGO**  
**grid computing center**  
at ICTS-TIFR, Bangalore