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国台学术报告 NAOC COLLOQUIUM

2016 年 第 33 次 / No. 33 2016

Time: Wed. 2:30 PM, Oct. 26 Location: A601 NAOC

LIGO: A Laser Strainmeter for the Universe

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Prof. Rana Adhikari is currently working as a Professor of Physics at California Institute of Technology (Caltech) USA. He has been working towards the detection of gravitational waves for 20 years, in which the LIGO team finally succeeded last year. He is a well known expert in this area and is now an active pioneer towards various activities related to pushing the quantum limits of precision measurement.

Abstract

After 50 years, the LIGO project has detected the gravitational radiation from the merger of astrophysical black holes. The spacetime strain due to these spectacular events produced an effective displacement of 1/1000 of a proton. I will describe how such a precise measurement can be done and what we can learn from such information. With an improvement of 1-2 orders of magnitude in the noise, these devices would be able to sense the fluctuations in space-time from all black holes within the observable universe.

All are welcome! Tea, coffee, biscuits will be served at 2:15 PM.