



千葉大学大学院理学研究科附属

ハドロン宇宙国際研究センター

International Center for Hadron Astrophysics

January ICEHAP Seminar

Date **Jan 26th Thursday 14 : 30~16 : 30**

Location **ICEHAP Office (Engineering Research Bldg.1 Room609-1)**

By **Professor Keiko Kokeyama , ICRR, University of Tokyo**

Title

『The Dawn of Gravitational Wave Astronomy』

Abstract

Gravitational waves are very subtle distortions of space-time. They stretch and squeeze space-time at very tiny amplitudes, typically 10^{-21} / $\sqrt{\text{Hz}}$ in strain. The space-time distortions are so tiny that Einstein himself did not believe that the direct detection could be possible. On Feb 11, 2016, exactly 100 years after Einstein predicted the existence of gravitational waves (GWs), Advanced LIGO (Laser Interferometric Gravitational-wave Observatory, aLIGO) team announced that they have detected the gravitational-wave signals from binary black holes at 13 billion light years away. This talk will review this monumental detection, the aLIGO detector and its developments. Speaker's experiences at LIGO Livingston during the detector commissioning time will be presented. Also, the status of Japanese GW detector, KAGRA, and the future GW projects will be shown.

Location: Neutrino Astrophysics Department

@ Engineering Research Bldg. 6th floor



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