

Institute of Advanced Studies



## Conference on Cosmology, Gravitational Waves and Particles

6-10 February 2017

Nanyang Executive Centre,
Nanyang Technological University, Singapore

In February 2016, physicists announced the discovery of gravitational waves, which were predicted in 1916 by Albert Einstein in his theory of General Relativity. About 1.3 billion years ago, two giant black holes collided and formed one very big black hole. During this collision, strong gravitational waves were emitted. They were discovered at the Laser Interferometer Gravitational-Wave Observatory (LIGO) in the United States. At the conference, experts from the detectors will present their results. Theoreticians will discuss the implications of the discovery. There will also be lectures on the expansion of the universe, on cosmology, on astrophysics and on particle physics. The Standard Theory of particle physics describes the electroweak and the strong interactions, but it is still unclear, how the gravitational interaction can be included.

At the conference in Singapore, these and related problems will be discussed, including possible new discoveries at the Large Hadron Collider in CERN.

## **ORGANISING COMMITTEE:**

Chair: Harald Fritzsch

University of Munich, Germany

Co-Chairs:

**Kok Khoo Phua** 

Institute of Advanced Studies, NTU, Singapore

**Zhi-Zhong Xing** 

IHEP, Chinese Academy of Sciences, China

## SPEAKERS INCLUDE:

Danzmann, K.

MPI Hannover, Germany

De Roeck, A. CERN

Flambaum, V. UNSW, Australia

Fritzsch, H.
University of Munich, Germany

Gunion, J.

University of California, Davis, USA

Gupta, M.

Panjab University, India

Minkowski, P.

University of Bern, Switzerland

Peik, E.

PTB Braunschweig, Germany

Rubbia, C.

CERN

Nobel Laureate in Physics 1984

Smoot, G.

University of California, Berkeley, USA Nobel Laureate in Physics 2006

Sola, J.

University of Barcelona, Spain

Volkas, R.

University of Melbourne, Australia

Wetterich, C.

Heidelberg University, Germany

Xing, Z.

IHEP, Chinese Academy of Sciences. China

and others

