

# 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 Fritzs**  
*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*

**Gunion, J.**  
*University of California, Davis, USA*

**Rubbia, C.**  
*CERN*  
**Nobel Laureate in Physics 1984**

**Volkas, R.**  
*University of Melbourne, Australia*

**De Roeck, A.**  
*CERN*

**Gupta, M.**  
*Panjab University, India*

**Smoot, G.**  
*University of California, Berkeley, USA*  
**Nobel Laureate in Physics 2006**

**Wetterich, C.**  
*Heidelberg University, Germany*

**Flambaum, V.**  
*UNSW, Australia*

**Minkowski, P.**  
*University of Bern, Switzerland*

**Sola, J.**  
*University of Barcelona, Spain*

**Xing, Z.**  
*IHEP, Chinese Academy of  
Sciences, China*

**Fritzs, H.**  
*University of Munich, Germany*

**Peik, E.**  
*PTB Braunschweig, Germany*

and others

