

Hanoi international workshop  
“*Gravitation and the Universe*”  
Hanoi, 30 October – 01 November 2016

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## WORKSHOP PROGRAM

### 1st day, Sunday, 30 October

8:30: *Registration* (with coffee and cookies)

8:50 – 9:00: *Welcome address*

**Session 1: Chair: M. Sasaki**

9:00 – 9:30: **T. Kajita**

9:30 – 10:30: **K. Cannon**

10:30 – 11:30: **T. Nakamura**

11:30 – 13:00: *Lunch*

**Session 2: Chair: R. Wald**

13:00 – 14:00: **G. Horowitz**

14:00 – 15:00: **K.-M. Lee**

15:00 – 15:30: *Coffee break*

**Session 3 (contributed talks): Chair: C.- C. Chen**

15:30 – 17:30:

- **J. Fedrow**
- **S. Takeuchi**
- **G. Domenech**
- **L. Tannukij**
- **R. Knoops**
- **V. V. Thuan**

### 2nd day, Monday, 31 October

9:00: *Coffee and cookies*

**Session 4: Chair: H. Tye**

9:30 – 10:30: **A. Shafieloo**

10:30 – 11:30: **R. Wald**

11:30 – 13:00: *Lunch*

**Session 5: Chair: K.-M. Lee**

13:00 – 14:00: **H. Tye**

14:00 – 15:00: **S. Tsujikawa**

15:00 – 15:30: *Coffee break*

**Session 6 (contributed talks): Chair: T.-C. Yuan**

- 15:30 – 17:30:
- C. Lin
  - N. T. Hong Van
  - L. H. Nhan
  - P. Wongjun
  - T. Q. Do
  - P. Tuan Anh

18:00: **Conference dinner**

### 3rd day, Tuesday, 01 November

9:00: *Coffee and cookies*

**Session 7: Chair: P. Darriulat**

9:30 – 10:30: **Nguyen Ai Viet**

10:30 – 11:30: **J.-O. Gong**

11:30 – 12:00: **M. Sasaki** (*summary*)

12:00 – 12:15: **Closing session** (for the workshop part) – **chair: N. A. Ky**

12:15 – 14:00: *Lunch*

14:00 – 17:00: **Public lectures and discussions** (aimed at general audience)

## Invited talks

1. **Takaaki Kajita** (University of Tokyo, Tokyo, Japan)  
"The KAGRA project".
2. **Kipp Cannon** (University of Tokyo, Tokyo, Japan)  
"Current results and status of LIGO and Virgo".
3. **Gary Horowitz** (University of California, Santa Barbara, USA)  
"Holography in classical and quantum gravity".
4. **Kimyeong Lee** (KIAS, Seoul, Korea)  
"On M5 branes".
5. **Takashi Nakamura** (Kyoto university, Kyoto, Japan)  
"Physics, astronomy and cosmology from the first detection of gravitational wave".
6. **Jinn-Ouk Gong** (APCTP, Pohang, Korea)  
"Biased prospects on inflationary cosmology".
7. **Arman Shafieloo** (KASI, Daejeon, Korea)  
"Search for evidences beyond the concordance model of cosmology".
8. **Shinji Tsujikawa** (Tokyo university of science, Tokyo, Japan)  
"Dark energy and modified gravity".

9. **Henry Tye** (Hongkong university of science and technology, Hongkong, and Cornell university, New York)  
"Gravitational waves from cosmic superstrings".
10. **Nguyen Ai Viet** (Vietnam national university, Hanoi)  
"Non-commutative Riemannian geometry and unification of all interactions by extra-dimensions".
11. **Robert M. Wald** (University of Chicago, Chicago, USA)  
"Dynamic and thermodynamic stability of black holes".
12. **Misao Sasaki** (Kyoto university, Kyoto, Japan)  
"Summary and perspectives".

## Contributed talks

1. **Joseph Fedrow** (Kyoto university, Japan)  
"Gravitational waves from binary black holes with gas".
2. **Shingo Takeuchi** (Naresuan university, Phisanulok, Thailand)  
"Kerr/CFT correspondence in a 4D extremal rotating regular black hole by treating the regularization effect up to the first cubic-order expansion".
3. **Guillem Domenech** (Kyoto university, Kyoto, Japan)  
"Consistency relation and inflation field redefinition in the delta N formalism".
4. **Lunchakorn Tannukij** (Mahidol university, Thailand)  
"Black string in massive gravity".
5. **Rob Knoops** (Chulalongkorn university, Bangkok, Thailand)  
"Inflation from supergravity with gauged R-symmetry in de Sitter vacuum".
6. **Vo Van Thuan** (Vietnam atomic energy institute, Hanoi, Viet Nam)  
"A microscopic cosmological model for lepton mass hierarchy".
7. **Chunshan Lin** (Kyoto university, Kyoto, Japan)  
"Do we have to modify gravity in the very early universe?".
8. **Nguyen Thi Hong Van** (Institute of physics, Hanoi, Viet Nam)  
"A project of building a neutrino physics group at IFIRSE, Quy Nhon, Viet Nam".
9. **Luu Hoang Nhan** (University of science, Ho Chi Minh city, Viet Nam)  
"Viscous Universe".
10. **Pitayuth Wongjun** (Naresuan university, Phisanulok, Thailand)  
"Rotating black hole and its thermodynamics properties in massive gravity theory".
11. **Tuan Q. Do** (Vietnam national university, Hanoi, Viet Nam)  
"On higher dimensional massive bi-gravity".
12. **Pham Tuan Anh** (Vietnam national satellite center, VAST, Hanoi, Viet Nam)  
"Millimetre/submillimetre astronomy studies of evolved stars, protostars and high redshift galaxies".