

**KMI-IEEC Joint International Workshop  
-- Inflation, Dark Energy, and Modified Gravity in  
the PLANCK Era --**

**3rd August, 2013**

**Kobayashi-Maskawa Institute for the Origin of Particles and the  
Universe (KMI), ES635 Science Symposia**

**Agenda:**

The current accelerated expansion of the universe as well as inflation in the early universe have been supported by recent various cosmological observations including the PLANCK data. In the commemoration of the official agreement for the cooperative collaborations between KMI and IEEC, after acquiring the precise observational results of the PLANCK satellite, we hold this international workshop and concentrate on the issue of the cosmic acceleration in both the early and late-time universe, so that we can find some clues to resolve such most fundamental and important problems in modern cosmology.

**Honorary Workshop Chair:**

Toshihide Maskawa (Director General, KMI, Nagoya University)

**International Advisory Committee:**

Shin'ichi Nojiri (KMI, Nagoya University)

Sergei D. Odintsov (ICREA/CSIC-IEEC, Spain)

**Organizers:**

Kazuharu Bamba (KMI, Nagoya University)

Shin'ichi Nojiri (KMI, Nagoya University) [[Chair](#)]

**Speakers include:**

Kazuharu Bamba (KMI, Nagoya University)

Salvatore Capozziello (University of Napoli, Italy)

Mariafelicia De Laurentis (University of Napoli, Italy)

Ratbay Myrzakulov (Eurasian National University, Kazakhstan)

Shin'ichi Nojiri (KMI, Nagoya University)

Sergei D. Odintsov (ICREA/CSIC-IEEC, Spain)

Diego Saez-Gomez (University of Cape Town, South Africa)

Misao Sasaki (YITP, Kyoto University)

### **Scientific Program:**

13:00 - 13:10 **Opening address** (Chair: Shin'ichi Nojiri)

Professor Hideyo Kunieda (Deputy Director, KMI)

13:10 - 15:10 **Invited talks I** (Chair: Shin'ichi Nojiri)

[1] (25 + 5)

Title: Evading non-Gaussianity consistency in single-field inflation

Speaker: Misao Sasaki (YITP, Kyoto University)

[2] (25 + 5)

Title: Modified gravity: what is the next?

Speaker: Sergei D. Odintsov (ICREA/CSIC-IEEC)

[3] (25 + 5)

Title: Hydrostatic equilibrium and stellar structures in  $f(R)$ - gravity

Speaker: Salvatore Capozziello (University of Napoli)

[4] (25 + 5)

Title: Jeans analysis of self-gravitating systems in  $f(R)$ - gravity

Speaker: Mariafelicia De Laurentis (University of Napoli)

15:10 - 15:40 Taking a Workshop Photo and Break

15:40 - 17:10 **Invited talks II** (Chair: Sergei D. Odintsov)

[5] (25 + 5)

Title: F(R) bigravity

Speaker: Shin'ichi Nojiri (KMI, Nagoya University)

[6] (25 + 5)

Title: Cosmological constraints in modified gravity theories

Speaker: Diego Saez-Gomez (University of Cape Town, South Arica)

[7] (25 + 5)

Title: F(T) gravity from higher dimensional theories and its cosmology

Speaker: Kazuharu Bamba (KMI, Nagoya University)

17:10 - 17:30 Break

17:30 - 18:50 **Short talks** (Chair: Kazuharu Bamba)

[9] (15 + 5)

Title: Modified gravity in space-time with curvature and torsion

Speaker: Ratbay Myrzakulov (Eurasian National University, Kazakhstan)

[9] (15 + 5)

Title: Correct interaction Hamiltonian for the primordial trispectrum

Speaker: Rio Saitou (Nagoya University)

[10] (15 + 5)

Title: Entropy for curvature squared gravity using surface term and auxiliary field

Speaker: Kyosuke Hirochi (Nagoya University)

[11] (15 + 5)

Title: Black Hole Solutions and Entropy in Bigravity

Speaker: Taishi Katsuragawa (Nagoya University)

**Social Program:**

19:00 - 20:30 **Banquet**