

# International Conference on Modified Gravity 2018

## MOGRA 2018

Date: August 8th (Wed.) –10th (Fri.), 2018

Place: KMI Symposia (ES635), ES Building, Nagoya University

URL: <http://www.kmi.nagoya-u.ac.jp/workshop/mogra2018/>

## Conference Program

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## Morning Session (8/8)

09:30 – 10:40	Registration
10:40 – 10:50	Opening Remarks (Shin'ichi Nojiri)
	<b>&lt;Morning Session 1&gt;</b> <b>Chair: Shin'ichi Nojiri</b>
10:50 – 11:30	<b>Progress in Massive Gravity</b> Andrew J. Tolley (Imperial College London)
11:30 – 11:50	<b>Extended mimetic gravity: Hamiltonian analysis and gradient instabilities</b> Kazufumi Takahashi (Rikkyo University)
11:50 – 12:10	<b>Inflation from modified gravity in higher dimensions</b> Hiroshi Nakada (Tokyo Metropolitan University)
11:10 – 12:30	<b>Scalar-tensor theories in metric-affine formalism</b> Katsuki Aoki (Waseda University)
12:30 – 14:00	Lunch

## Afternoon Session (8/8)

### <Afternoon Session 1>

Chair: Hiroaki Kanno

- 14:00 – 14:40 **Two applications of the infrared factorization of IR dynamics**  
Massimo Porrati (New York University, YITP)
- 14:40 – 15:00 **S-matrix Unitarity and Renormalizability in Higher Derivative Theories**  
Tomotaka Kitamura (Waseda University)
- 15:00 – 15:20 **Generalization of massive spin-two theory in arbitrary curved spacetime**  
Satoshi Akagi (Nagoya University).
- 15:20 – 15:40 **Renormalization and running some gravitational coupling constants**  
Taisaku Mori (Nagoya University)

15:40 – 16:00 Coffee Break

### <Afternoon Session 2>

Chair: Kiyotomo Ichiki  
Yuichiro Tada

- 16:00 – 16:40 **Test of gravity with gravitational wave observations**  
Atsushi Nishizawa (KMI, Nagoya)
- 16:40 – 17:00 **Six Polarizations of GW and detector network with KAGRA**  
Hideki Asada (Hirosaki University)
- 17:00 – 17:20 **Superradiance of the Alfvén wave in force-free region**  
Takuma Tsukamoto (Nagoya University)
- 17:20 – 17:40 **Validity of chameleon mechanism in inhomogeneous density profile**  
Tomohiro Nakamura (Nagoya University)

## Morning Session (8/9)

### <Morning Session 1>

Chair: Tetsuya Shiromizu

09:30 – 09:50

#### **On Uniqueness of Static Asymptotic AdS Space-time**

Xiaoning Wu (Institute of Mathematics, AMSS)

09:50 – 10:10

#### **On Some Estimates of Hawking Mass for CMC Surfaces**

Naqing Xie (Fudan University)

10:10 – 10:30

#### **Quasi-local energy and universal horizon thermodynamics**

Fei-hung Ho (Jimei University)

10:30 – 10:50:

Coffee Break

### <Morning Session 2>

Chair: Andrew J. Tolley

10:50 – 11:30

#### **Scalar-tensor theories after GW170817 and relativistic stars in DHOST**

Tsutomu Kobayashi (Rikkyo University)

11:30 – 11:50

#### **Phantom crossing dark energy in Horndeski's theory**

Jiro Matsumoto (National Taiwan University)

11:50 – 12:10

#### **Cosmological implication of DHOST theory**

Shin'ichi Hirano (Rikkyo University)

12:10 – 12:30

#### **Extended Cuscuton : Formulation and Cosmology**

Aya Iyonaga (Rikkyo University)

12:30 – 14:00

Lunch (Group Photo at ES Building)

## Afternoon Session (8/9)

### <Afternoon Session 1>

Chair: Atsushi Nishizawa

- 14:00 – 14:40 **Gravitational waves in modified teleparallel theories of gravity**  
Salvatore Capozziello (Universita di Napoli)
- 14:40 – 15:00 **Relativistic Stars in dRGT massive gravity**  
Masashi Yamazaki (Nagoya University)
- 15:00 – 15:20 **A slowly rotating object in the post-Newtonian approximation of the dynamical Charn-Simons modified gravity: Constraint by the Gravity Probe B experiment.**  
Yuya Nakamura (Hirosaki University)
- 15:20 – 15:40 **Anti-Screening of the Galileon force around a disk center hole**  
Hiromu Ogawa (Rikkyo University)
- 15:40 – 16:00 Coffee Break

### <Afternoon Session 2>

Chair: Chulmoon Yoo

- 16:00 – 16:40 **Modified gravity cosmology: the works by Prof S. Nojiri**  
Sergei D. Odintsov (ICREA, ICE)
- 16:40 – 17:00 **Chameleonic Dark Matter and F(R) Gravity**  
Taishi Katsuragawa (Central China Normal University)
- 17:00 – 17:20 **Scaloron DM in logarithmic F(R) gravity**  
Yamato Matsuo (Hiroshima University)
- 17:20 – 17:40 **Gravitational Wave in Modified Gravity**  
Shin'ichi Nojiri (KMI, Nagoya University)
- 18:00 – 20:00 Banquet

## Morning Session (8/10)

### <Morning Session 1>

Chair: Tsutomu Kobayashi

09:30 – 10:10

#### **Towards a Complete Scenario of the Early Universe**

Taotao Qiu (Central China Normal University)

10:10 – 10:30

#### **Probing the Starobinsky $R^2$ inflation model with CMB precision cosmology**

Yuki Watanabe (NIT, Gunma College)

10:30 – 10:50:

Coffee Break

### <Morning Session 2>

Chair: Yasusada Nambu

10:50 – 11:10

#### **Stochastic inflation in a general field space**

Yuichiro Tada (Nagoya University)

11:10 – 11:30

#### **Generic analysis of kinetically driven inflation**

Rio Saitou (LeCosPA, National Taiwan University)

11:30 – 11:50

#### **Inflationary universe in unimodular $F(T)$ gravity**

Kazuharu Bamba (Fukushima University)

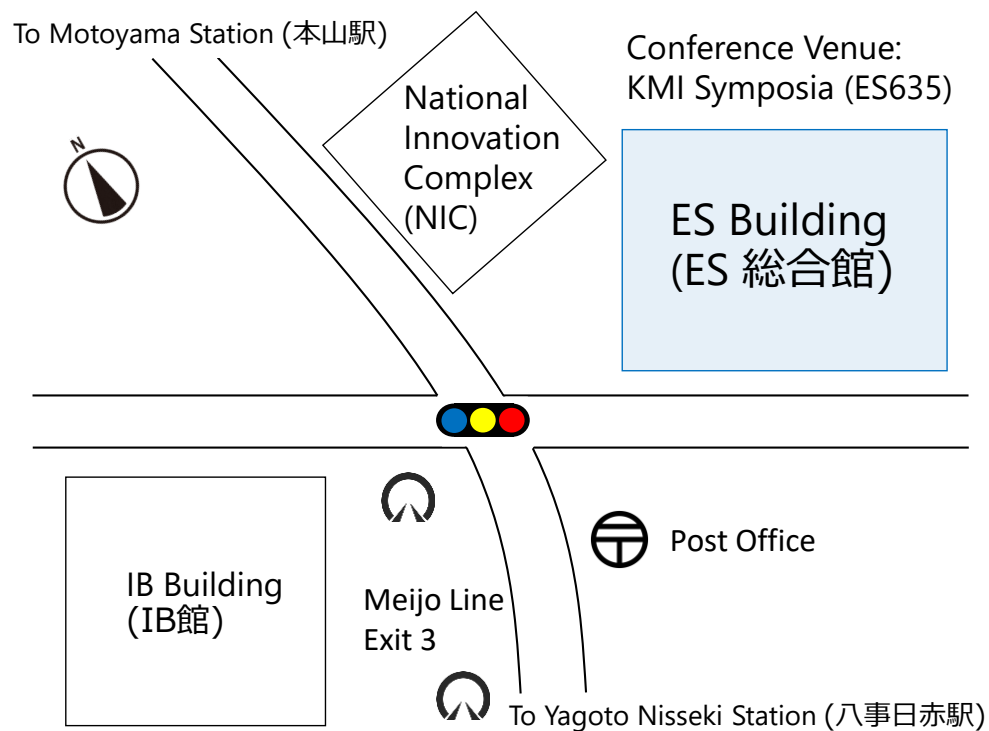
11:50 – 12:00

Closing Remarks (Massimo Porrati)

## Access Information

### Access to Conference Venue

All the plenary sessions will be held at KMI Symposia (ES635) on the 6th floor of the ES Building at Nagoya University, Higashiyama campus.



ES Building locates at (C2 ④) on the Campus Map:

<http://en.nagoya-u.ac.jp/map/index.html>

## Access to Nagoya University (Higashiyama Campus)

### From Nagoya Station

Take the Subway Higashiyama Line to Motoyama Sta. (15 minutes), then transfer to the Subway Meijo Line to Nagoya Daigaku Sta. (Higashiyama Campus is just off the subway exit.).

### From Centrair (Central Japan International Airport)

Take the Meitetsu Line to Kanayama Sta. (30 min.), then transfer to the Subway Meijyo Line to Nagoya Daigaku Sta. (21 min.).

## Access to Nagoya Station

### From Centrair (Central Japan International Airport)

Take the Meitetsu Line (30 min.) or the airport bus (60 min.).

### From Tokyo Station

Take the Shinkansen (103 min.).

### From Shin-Osaka Station

Take the Shinkansen (52 min.).

Please also check the official website of Nagoya University:

<http://en.nagoya-u.ac.jp/access/index.html>



# Route Map in Nagoya

