
JGRG28 Program (as of November 2)

Tachikawa Memorial Hall, Ikebukuro Campus, Rikkyo University, Tokyo

- Outstanding presentation awards: those who are eligible are marked with an asterisk (*).

Monday, November 5

9:00 – 10:00	Registration
10:00 – 10:15	Opening Remark by Tomohiro Harada
10:15 – 11:00	Invited Talk 1 (Chair: T. Tanaka) Hirotaka Takahashi <i>Nagaoka University of Technology</i> Status of KAGRA and KAGRA data analysis
11:00 – 12:15	Session 1A [T1*] Nami Uchikata <i>Niigata University</i> Analysis of echoes by a new template [T2*] Takahiro Yamamoto <i>Kyoto University</i> Analysis of Ringdown Gravitational Wave by Neural Network [T3*] Hiroki Takeda <i>University of Tokyo</i> Polarization test of gravitational waves from compact binary coalescences [T4*] Haruka Suzuki <i>Waseda University</i> The Effect of Kozai-Lidov Mechanism on the Period Shift of the Binary Neutron Stars by Gravitational Waves [T5*] Asuka Ito <i>Kobe University</i> A strategy for detecting the bispectrum of stochastic gravitational waves
12:15 – 14:00	Lunch
14:00 – 14:45	Invited Talk 2 (Chair: M. Sasaki) Mark B. Hindmarsh <i>University of Sussex</i> Gravitational waves from phase transitions in the early Universe
14:45 – 15:15	Session 1P1 [T6] Osamu Seto <i>Hokkaido University</i> Gravitational waves from seesaw phase transition [T7*] Naonori Sugiyama <i>Kavli IPMU</i> Limits on primordial statistical anisotropy from large-scale structure
15:15 – 15:30	Short Poster Talks
15:30 – 16:45	Coffee & Posters
16:45 – 18:30	Session 1P2 (Chair: K. Yamamoto) [T8*] Hayato Fukunaga <i>Nagoya University</i> Flapping resonance instability of axions and prospects on gravitational wave forest [T9*] Toyokazu Sekiguchi <i>RESCEU, University of Tokyo</i> Long-term dynamics of axion strings [T10*] Emi Masaki <i>Kobe University</i> Axion-Photon Conversion in the Presence of Oscillating Axion Background

- [T11*] Ryo Kato *Kobe University*
Searching for the axion dark matter with pulsar timing arrays
- [T12*] Hiromasa Nakatsuka *ICRR, University of Tokyo*
Primordial black holes in an axion-like curvaton model
- [T13*] Kensuke Akita *Tokyo Institute of Technology*
Affleck-Dine baryogenesis in the SUSY DFSZ axion model without R-parity
- [T14*] Fabio Chibana *Tokyo Institute of Technology*
Redshift space distortions in the presence of non-minimally coupled dark matter

Tuesday, November 6

- 9:00 – 9:45 Invited Talk 3 (Chair: J. Yokoyama)
- David F. Mota *University of Oslo*
Nonlinear astrophysical probes of gravity beyond General Relativity
- 9:45 – 10:15 Session 2A1
- [T15] Katsuki Aoki *Waseda University*
Ghost-free scalar-tensor theories in metric-affine formalism
- [T16*] Keigo Shimada *Waseda University*
Inflation in Metric-affine Gravity
- 10:15 – 10:45 Coffee & Posters
- 10:45 – 12:15 Session 2A2 (Chair: Y. Nambu)
- [T17*] Zhi-Bang Yao *Sun Yat-sen University*
Spatially Covariant Gravity with Velocity of the Lapse Function
- [T18*] Aya Iyonaga *Rikkyo University*
Extended Cuscuton: Formulation
- [T19*] Kazufumi Takahashi *Rikkyo University*
Extended Cuscuton: Cosmology
- [T20*] Mai Yashiki *Yamaguchi University*
Cosmological viability of the unified models of inflation and dark energy in $f(R)$ gravity
- [T21*] Shin'ichi Hirano *Rikkyo University*
Cosmological implication of DHOST theory
- [T22*] Shintaro Nakamura *Tokyo University of Science*
Observational constraints with integrated Sachs-Wolfe effect on generalized Proca theories
- 12:15 – 14:00 Lunch
- 14:00 – 14:45 Invited Talk 4 (Chair: T. Shiromizu)
- Jose Martin Senovilla *University of the Basque Country UPV/EHU*
Multiple Killing Horizons
- 14:45 – 15:45 Session 2P1
- [T23*] Hayato Motohashi *Yukawa Institute for Theoretical Physics, Kyoto University*
Shape dependence of spontaneous scalarization
- [T24*] Masato Minamitsuji *Center for Astrophysics and Gravitation (CENTRA), Univ. of Lisbon*
Scalarized black holes in the presence of the Gauss-Bonnet coupling

[T25*] Yuya Nakamura *Hirosaki University*
Slowly-rotating, Weakly-Gravitating Objects in dynamical Chern-Simons gravity and Constraints with Gravity Probe B

[T26*] Masato Nozawa *Yukawa Institute for Theoretical Physics, Kyoto University*
On the uniqueness theorems of static black holes

15:45 – 16:45

Coffee & Posters

16:45 – 18:30

Session 2P2 (Chair: T. Chiba)

[T27] Antonino Flachi *Keio University*
Toying with Symmetry Breaking in Curved Space

[T28*] Sirachak Panpanich *Chulalongkorn University*
Fitting rotation curves of galaxies by de Rham-Gabadadze-Tolley massive gravity

[T29*] Michele Oliosi *Yukawa Institute for Theoretical Physics, Kyoto University*
Black holes and stars in the Minimal Theory of Massive Gravity

[T30*] Andrea Nerozzi *Instituto Superior Tecnico*
Tetrad formalisms and gauge fixing for binary black hole simulations

[T31*] Kazuma Takahashi *Osaka City University*
Imaging of gravitational collapsing star by numerical simulation

[T32*] Anton Khirnov *Institute of Theoretical Physics, Charles University*
Numerical evolution of axisymmetric gravitational wave collapse

[T33] Muhammad Sharif *University of the Punjab*
Tilted Anisotropic Polytropes

Wednesday, November 7

9:00 – 9:45

Invited Talk 5 (Chair: H. Tagoshi)

Jonathan Gair *University of Edinburgh*
Science with the Laser Interferometer Space Antenna

9:45 – 10:15

Session 3A1

[T34] Jiro Murata *Rikkyo University*
Laboratory Tests of Newtonian Gravity

[T35*] Kei Yamada *Kyoto University*
Near-horizon behavior of the second-order BH perturbations

10:15 – 10:30

Short Poster Talks 2

10:30 – 11:15

Coffee & Posters

11:15 – 12:15

Session 3A2 (Chair: K. Oohara)

[T36*] Yasutaka Koga *Rikkyo University*
Analysis of accretion flows in D dimensions: sonic points, critical points, and photon spheres

[T37*] Toshiaki Ono *Hirosaki University*
Gravitomagnetic bending angle of light in stationary axisymmetric spacetimes

[T38*] Tatsuya Ogawa *Osaka City University*
Charge Screened Boson Stars

[T39*] Takuma Tsukamoto *Nagoya University*
Superradiance in force-free electromagnetic region

12:15 – 14:00	Lunch
14:00 – 15:30	<p>Session 3P1 (Chair: M. Yamaguchi)</p> <p>[T40*] Akira Matsumura <i>Nagoya University</i> Quantum discrimination for the Universe</p> <p>[T41] Anupam Mazumdar <i>University of Groningen</i> Spin Entanglement Witness for Quantum Gravity</p> <p>[T42] Shinpei Kobayashi <i>Tokyo Gakugei University</i> Algebraic construction of solutions in noncommutative gravity and squeezed coherent state</p> <p>[T43*] Yota Watanabe <i>Kavli IPMU, University of Tokyo</i> Anisotropy problem in Horava-Lifshitz gravity</p> <p>[T44*] Tomotaka Kitamura <i>Waseda University</i> Matter Scattering and Unitarity in Horava-Lifshitz Gravity</p> <p>[T45*] Satoshi Akagi <i>Nagoya University</i> Massive spin-two theory in arbitrary background</p>
15:30 – 16:30	Coffee & Posters
16:30 – 18:00	<p>Session 3P2 (Chair: M. Shibata)</p> <p>[T46*] Shuntaro Mizuno <i>Yukawa Institute for Theoretical Physics, Kyoto University</i> Blue-tilted Primordial Gravitational Waves from Massive Gravity</p> <p>[T47*] Shi Pi <i>Kavli IPMU</i> Gravitational Waves Induced by non-Gaussian Scalar Perturbations</p> <p>[T48*] Chao Kang <i>Sun Yat-sen University</i> Primordial gravitational waves and perturbations during an inhomogeneous inflation</p> <p>[T49*] Yuki Niiyama <i>Hirosaki University</i> Energy density of tensor perturbations in Einstein-Weyl gravity and its application to primordial gravitational waves</p> <p>[T50*] — <i>Canceled</i> —</p> <p>[T51*] Hiroaki Tahara <i>RESCEU, University of Tokyo</i> Self-anisotropizing universe in Horndeski theory</p> <p>[T52*] Yoh Kobayashi <i>Waseda University</i> Bouncing Bianchi-IX cosmologies in mimetic gravity</p>
18:00 – 18:10	Takashi Nakamura <i>Kyoto University</i> Memories of Noriaki Shibazaki
18:45 –	Banquet at Main Dining Hall

Thursday, November 8

9:00 – 9:45	<p>Invited Talk 6 (Chair: T. Harada)</p> <p>Bernard John Carr <i>Queen Mary University of London</i> PRIMORDIAL BLACK HOLES: LINKING MICROPHYSICS AND MACROPHYSICS</p>
9:45 – 10:15	<p>Session 4A1</p> <p>[T53*] Kazumasa Okabayashi <i>Waseda University</i> Maximal Efficiency of Collisional Penrose Process with Spinning Particles</p>

[T54*] Kota Ogasawara *Rikkyo University*
Collision of two dust thin shells in the BTZ spacetime

10:15 – 10:45 Coffee & Posters

10:45 – 12:00 Session 4A2 (Chair: K. Nakao)

[T55] Hiromi Saida *Daido University*

Exploring GR Effect of Super-Massive BH at Galactic Center 1: current status of our project

[T56*] Takayuki Ohgami *Daido University*

Exploring GR Effects of Super-Massive BH at Galactic Center 2: on the detail of fitting theory with observational data

[T57*] Filip Ficek *Jagiellonian University*

Planar domain walls in Kerr spacetime

[T58*] — *Canceled* —

[T59*] Masashi Kimura *Instituto Superior Tecnico, Universidade de Lisboa*

Stability analysis of black holes by the S-deformation method for coupled systems

[T60*] Satsuki Matsuno *Osaka City University*

Schwarzschild and Majumdar-Papapetrou spacetime in dielectric media

12:00 – 14:00 Lunch

14:00 – 14:45 Invited Talk 7 (Chair: S. Kanno)

Vincent Vennin *APC Paris*

Stochastic Inflation and Primordial Black Holes

14:45 – 15:45 Session 4P1

[T61*] Yuichiro Tada *Nagoya University*

Stochastic formalism and curvature perturbations

[T62*] Junsei Tokuda *Kyoto University*

On the contribution of infrared secular effects to primordial fluctuations via quantum interference

[T63*] Naoya Kitajima *Nagoya University*

Distribution of primordial black holes and 21cm signature

[T64*] Takafumi Kokubu *KEK & Rikkyo University*

Effect of Inhomogeneity on Primordial Black Hole Formation in the Matter Dominated Era

15:45 – 16:45 Coffee & Posters

16:45 – 18:30 Session 4P2 (Chair: H. Ishihara)

[T65*] Kohei Fujikura *Tokyo Institute of Technology*

Phase Transitions in Twin Higgs Models

[T66*] Yi-Peng Wu *RESCEU, University of Tokyo*

Higgs as heavy-lifted physics during inflation

[T67*] Minxi He *RESCEU, University of Tokyo*

Reheating in the Mixed Higgs- R^2 Model

[T68*] Keisuke Inomata *ICRR, University of Tokyo*

Power spectra of CMB circular polarizations induced by primordial perturbations

[T69*] Ippei Obata *ICRR, University of Tokyo*

Footprint of Two-Form Field: Statistical Anisotropy in Primordial GWs

[T70*] Suro Kim *Kobe University*

Spin Spectroscopy in the EFT of Inflation

[T71*] Hiroyuki Kitamoto *National Center for Theoretical Sciences*
Schwinger Effect in Inflation-Driven Electric Field

18:40 – SOC meeting

Friday, November 9

9:00 – 10:30 Invited Talk 8 & 9 (Chair: S. Mukohyama)
Alexei A. Starobinsky *L.D. Landau Institute for Theoretical Physics*
Looking for quantum-gravitational corrections to $R+R^2$ inflation
Jean-Philippe Uzan *CNRS/Institut d'Astrophysique de Paris*
Properties of the anisotropy of the astrophysical stochastic gravitational wave background

10:30 – 10:45 Coffee

10:45 – 12:00 Session 5A (Chair: H. Asada)

[T72] Atsushi Nishizawa *KMI, Nagoya University*
Test of the equivalence principle at cosmological distance with gravitational waves

[T73] Yuki Watanabe *NIT, Gunma College*
Probing the Starobinsky R^2 inflation with CMB precision cosmology

[T74] Chulmoon Yoo *Nagoya University*
PBH abundance from random Gaussian curvature perturbations and a local density threshold

[T75] Hector Hernandez *Universidad Autonoma de Chihuahua*
Polymer representation for coherent states

[T76] — *Canceled* —

[T77] Marcus Christian Werner *Yukawa Institute for Theoretical Physics, Kyoto University*
New developments in optical geometry

12:00 – 12:15 Presentation Awards

12:15 – 12:30 Closing Remark by Kei-ichi Maeda