# JGRG30 Program (Waseda University, Tokyo)

- Outstanding presentation awards: those who are eligible are marked with an asterisk (\*).
- This program is based on Japanese standard time (JST) = GMT+9.

|          | 6 De - /M          | 7 D /T \         | 0 D (\M   1)     | 0 D (TL )         | 10 D (F ·)       |
|----------|--------------------|------------------|------------------|-------------------|------------------|
| 0.00     | 6 Dec (Mon)        | 7 Dec (Tue)      | 8 Dec (Wed)      | 9 Dec (Thu)       | 10 Dec (Fri)     |
| 9:00     | Opening            | Parallel Session | Invited talk     | Parallel Session  | Invited talk     |
|          | Invited talk       | B1a & B1b        | Hisaaki Shinkai  | D1a & D1b         | Yu-tin Huang     |
|          | Mark Trodden       |                  |                  |                   |                  |
|          |                    |                  | Break            |                   | Break            |
| 10:00    | Short poster talks |                  | Parallel Session |                   | Session E        |
|          |                    |                  | C1a & C1b        |                   |                  |
|          | Break              | Break            |                  | Break             |                  |
| $\sqcup$ | Parallel Session   | Parallel Session |                  | Parallel Session  |                  |
| 11:00    | A1a & A1b          | B2a & B2b        |                  | D2a & D2b         |                  |
|          |                    |                  |                  |                   |                  |
|          |                    |                  |                  |                   |                  |
|          |                    |                  |                  |                   |                  |
| 12:00    | Lunch & poster     | Lunch & poster   | Lunch & poster   | Lunch & poster    | Awards & Closing |
|          |                    |                  |                  |                   |                  |
|          |                    |                  |                  |                   |                  |
|          |                    |                  |                  |                   |                  |
| 13:00    |                    |                  |                  |                   |                  |
|          |                    |                  |                  |                   |                  |
|          |                    |                  |                  |                   |                  |
|          |                    |                  |                  |                   |                  |
| 14:00    |                    |                  | Coffee & Posters |                   |                  |
|          |                    |                  |                  |                   |                  |
|          | Parallel Session   | Parallel Session |                  | Parallel Session  |                  |
|          | A2a & A2b          | B3a & B3b        |                  | D3a & D3b         |                  |
| 15:00    |                    |                  |                  |                   |                  |
|          |                    |                  |                  |                   |                  |
|          |                    |                  | Parallel Session |                   |                  |
|          |                    |                  | C2a & C2b        |                   |                  |
| 16:00    | Coffee & Posters   | Coffee & Posters |                  | Coffee & Posters  |                  |
|          |                    |                  |                  |                   |                  |
|          |                    |                  |                  |                   |                  |
|          |                    |                  | Break            |                   |                  |
| 17:00    | Invited talk       | Invited talk     | Invited talk     | Invited talk      |                  |
|          | Ed Copeland        | Ana Achucarro    | Kenta Kiuchi     | Krishnendu Varium |                  |
|          |                    |                  |                  |                   |                  |
|          | Invited talk       | Invited talk     | Invited talk     |                   |                  |
| 18:00    | Hiranya Peiris     | Ilia Musco       | Vitor Cardoso    | SOC Meeting       |                  |
|          |                    |                  |                  |                   |                  |
|          |                    |                  |                  |                   |                  |
|          |                    |                  |                  |                   |                  |
| 19:00    |                    |                  | Online Banquet   |                   |                  |
|          |                    |                  |                  |                   |                  |
|          |                    |                  |                  | <u> </u>          | <u> </u>         |

## Monday, December 6

| 9:00 – 9:15   | Opening Remark by Shinji Tsujikawa  |
|---------------|---|
| 9:15 - 10:00  | Invited Talk (Chair : Shinji Mukohyama)<br>Mark Trodden<br>"Coupled Early Dark Energy"                    |
| 10:00 - 10:30 | Short Poster Talks  |
| 10:30 - 10:45 | Break   |
| 10:45 - 12:00 | Parallel Session A1 (A1a & A1b)   |
| 12:00 – 14:30 | Lunch & Poster  |
| 14:30 – 16:00 | Parallel Session A2 (A2a & A2b)   |
| 16:00 – 17:00 | Coffee & Posters  |
| 17:00 – 17:45 | Invited Talk (Chair : Tsutomu Kobayashi)<br>Ed Copeland<br>"Approaches to understanding dark energy"      |
| 17:45 – 18:30 | Invited Talk (Chair : Koutarou Kyutoku)<br>Hiranya Peiris<br>"Survey Cosmology in the Multimessenger Era" |
|               |   |

#### -Parallel Session A1-

# Parallel Session (a) (Chair : Toshifumi Noumi)

10:45 – 12:00 [A1a1] \*Akira Matsumura (Kyushu University)

Entanglement-free witness for non-classical gravity

[A1a2] \*Youka Kaku (Nagoya University)

Quantum gravity witness using the quantum clock

[A1a3] Ar Rohim (Hiroshima University)

Gravitational quantum states of relativistic bouncing particles

[A1a4] \*Daisuke Miki (Kyushu University)

Non-Gaussian entanglement in gravitating masses

[A1a5] Hing-Tong Cho (Tamkang University)

Quantum noise and stochastic force from gravitons

Parallel Session (b) (Chair: Ryo Saito)

10:45 – 12:00 [A1b1] \*Jun'ya Kume (RESCEU, Univ. of Tokyo)

Gravitational birefringence in the primordial chiral plasma

[A1b2] \*Masaya Amo (YITP)

Asymptotic behavior of null geodesics near future null infinity:

Relationship to gravitational waves and curvature

[A1b3] \*Sota Sato (Kobe University)

Positivity Bounds on Dark Photon Models

[A1b4] Shaoqi Hou (Wuhan University)

Asymptotic analysis of Chern-Simons modified gravity and its memory effects

#### -Parallel Session A2-

Parallel Session (a) (Chair : Daisuke Yamauchi)

14:30 – 16:00 [A2a1] Keisuke Nakashi (NIT, Kochi College)

Stealth black hole perturbations in DHOST theories

[A2a2] Yue Nan (Hiroshima University)

Large-scale structure with inhomogeneneous dark energy

[A2a3] \*Yusuke Manita (Kyoto University)

Linear growth of structure in Projected Massive Gravity

[A2a4] \*Prajwal Hassan Puttasiddappa (University of Heidelberg)

Difficulties in reconciling Newtons Constant locally in Brans Dicke Cosmology

[A2a5] \*Luciano Petruzziello (University of Salerno & INFN - National Institute for Nuclear Physics)

Quantum gravitational decoherence from minimal length scale

[A2a6] \*David Figueruelo (University of Salamanca)

Momentum transfer in the dark sector and the role of \$S\_8\$

Parallel Session (b) (Chair : Yuichiro Tada)

14:30 – 16:00 [A2b1] \*Ryoto Inui (Nagoya University)

LISA-consistency with primordial black holes as dark matter in light of the exponential tail

[A2b2] Shi Pi (ITP, CAS)

Primordial Black Holes in the curvaton scenario

[A2b3] \*Lakhdar Sek (University of Biskra-Algeria)

dirac oscillator in noncommutative space

[A2b4] Eugeny Babichev (IJCLab)

Dark Matter via inverse phase transition and gravitational wave signal

[A2b5] \*Hilberto da Silva (Instituto de Astrofísica e Ciências do Espaço) Local Cosmic Strings in Hybrid metric-Palatini Gravity

[A2b6] \*Keita Takizawa (Hirosaki University)

Gravitational lens equations in de-Sitter and anti-de Sitter backgrounds

## Tuesday, December 7

| 9:00 – 10:30  | Parallel Session B1 (B1a & B1b)   |
|---------------|---|
| 10:30 - 10:45 | Break   |
| 10:45 - 12:00 | Parallel Session B2 (B2a & B2b)   |
| 12:00 – 14:30 | Lunch & Poster  |
| 14:30 – 16:00 | Parallel Session B3 (B3a & B3b)   |
| 16:00 – 17:00 | Coffee & Posters  |
|               |   |
| 17:00 – 17:45 | Invited Talk (Chair : Masahide Yamaguchi)                                 |
|               | Ana Achucarro "A handmade tail, and other (multifield inflation) stories" |
| 17:45 – 18:30 | Invited Talk (Chair : Tomohiro Harada) Ilia Musco                         |
|               | "Primordial Black Holes: formation and cosmological abundance"            |

#### -Parallel Session B1-

# Parallel Session (a) (Chair : Atsushi Naruko)

9:00 - 10:30 [B1a1] \*Tact Ikeda (Rikkyo Univ.)

Generalized Proca in metric-affine formalism

[B1a2] \*Kota Numajiri (Nagoya University)

Compact Star in General F(R) Gravity: Inevitable Degeneracy Problem and Non-Integer Power Correction

[B1a3] \*Norihiro Tanahashi (Chuo University)

Invertibility conditions for field transformations with derivatives: toward extensions of disformal transformations

[B1a4] \*Daisuke Yoshida (Kobe University)

Singularity theorem for non-singular universe

[B1a5] \*Yuichi Miyashita (Tokyo Institute of Technology)

topological defects in nonlocal field theories

[B1a6] \*Katsuki Aoki (YITP)

Positivity vs. Lorentz-violation

Parallel Session (b) (Chair: Shijun Yoshida)

9:00 – 10:30 [B1b1] \*Taiga Miyachi (Kobe University)

False vacuum decay in a two-dimensional black hole spacetime

[B1b2] \*Takuya Katagiri (Rikkyo university)

The Aretakis constants and instability in general spherically symmetric extremal black hole spacetimes: higher multipole modes, late-time tails, and geometrical meanings

[B1b3] \*Yasutaka Koga (Nagoya University)

Photon sphere and black hole shadow in Vaidya spacetime

[B1b4] \*Takahisa IGATA (High Energy Accelerator Research Organization)

Retrograde periapsis shift due to extended matter distribution

[B1b5] \*Jinbo Yang (Kanazawa University)

How well are trapping horizons for describing an evolving wormhole: Analytic example

[B1b6] \*Horng Sheng Chia (Institute for Advanced Study) [pre-recorded]

Tidal Deformation and Dissipation of Rotating Black Holes

#### -Parallel Session B2-

Parallel Session (a) (Chair: Kohei Kamada)

10:45 – 12:00 [B2a1] \*Chong-Bin Chen (Kobe University)

Geometrical Destabilization of Multi-Scalar-Gauge Inflation

[B2a2] \*Yusuke Mikura (Nagoya University)

On UV-completion of Palatini-Higgs inflation

[B2a3] \*Pengyuan Gao (Kobe University)

Inflation with an SU(3) gauge field

[B2a4] \*Yukiyoshi Morishita (Nagoya Uni.)

Mixed multi-inflaton and spectator field models: Implications to recent BICEP/Keck 2018 result

[B2a5] \*Tomoaki Murata (Rikkyo University)

A numerical study on initial conditions for axion-SU(2) inflation

Parallel Session (b) (Chair : Keiju Murata)

10:45 – 12:00 [B2b1] \*Kimihiro Nomura (Kobe University)

Quasinormal modes of charged black holes with corrections from nonlinear electrodynamics

[B2b2] \*Naritaka Oshita (RIKEN, iTHEMS)

On the ease of excitation of black hole overtones

[B2b3] \*Yuki Osawa (Nagoya university)

Entanglement Structure of Analogous Black Hall

[B2b4] \*Takafumi Kokubu (Kavli IPMU)

Confined Penrose process with charged particles

[B2b5] \*Jun Tsujimura (Nagoya University)

Observing black holes through superconductors

#### -Parallel Session B3-

# Parallel Session (a) (Chair: Ryo Namba)

14:30 – 16:00 [B3a1] \*Mian Zhu (The Hong Kong University of Science and Technology)

Alternative to inflation scenario from DHOST cosmology

[B3a2] \*Nils A. Nilsson (CQUeST/Sogang University)

Spacetime symmetries in the early Universe

[B3a3] \*Sravan Kumar (Tokyo Institute of Technology)

Conformal GUT inflation, Dark matter and Standard Model

[B3a4] \*Beatriz Elizaga Navascués (Waseda University)

Relativistic vs. loop quantum effects in the primordial power spectrum

[B3a5] \*Lucas Pinol (IFT Madrid (UAM-CSIC))

The non-linear Universe as a particle detector

[B3a6] \*P. Jishnu Sai (Indian Institute of Science)

On the primordial correlation of gravitons with gauge fields

#### Parallel Session (b) (Chair: Norihiro Tanahashi)

14:30 – 16:00 [B3b1] Masashi Kimura (Rikkyo University)

Metric Backreaction of the Blandford-Znajek Process

[B3b2] \*Daniele Gregoris (Jiangsu University of Science and Technology)

Understanding Gravitational Entropy of Black Holes: A New Proposal via Curvature Invariants

[B3b3] Chun-Hung Chen (The Institute for Fundamental Study, Naresuan University)

On the Dolan-Ottewill method for solving quasinormal modes

[B3b4] \*Ratchaphat Nakarachinda (Naresuan university)

Effective thermodynamical system of Schwarzschild-de Sitter black holes from Renyi statistics

[B3b5] \*Emmanuel Frion (Helsinki Institute of Physics) [pre-recorded]
Testing the Equivalence Principle with Black Hole Shadows and Photon Rings

[B3b6] \*Alejandro García-Quismondo (Institute for the Structure of Matter (IEM-CSIC)) Investigating an alternative Hamiltonian derivation of the Ashtekar-Olmedo-Singh black hole solution

## Wednesday, December 8

| 9:00 – 9:45   | Invited Talk (Chair : Takahiro Tanaka) Hisaaki Shinkai "LIGO-Virgo-KAGRA network for hunting gravitational waves"  |
|---------------|--|
| 9:45 – 10:00  | Break  |
| 10:00 – 12:00 | Parallel Session C1 (C1a & C1b)  |
| 12:00 – 15:30 | Lunch & Poster   |
| 15:30 – 16:45 | Parallel Session C2 (C2a & C2b)  |
| 16:45 – 17:00 | Break  |
| 17:00 – 17:45 | Invited Talk (Chair : Koutarou Kyutoku) Kenta Kiuchi "Recent progress of numerical relativity simulations of compact objects and its application to gravitational wave astrophysics" |
| 17:45 – 18:30 | Invited Talk (Chair : Chulmoon Yoo) Vitor Cardoso "Testing GR with GWs"  |
| 19:00 -       | Online Banquet   |

#### -Parallel Session C1-

## Parallel Session (a) (Chair : Atsushi Nishizawa)

10:00 – 12:00 [C1a1] Anzhong Wang (Baylor University)

Testing Gravitational Theories with Broken Lorentz Symmetry by Gravitational Wave Observations

[C1a2] \*Nami Uchikata (ICRR Univ. of Tokyo)

Parameter estimation on superspinar binaries using gravitational waves

[C1a3] \*Tatsuya Narikawa (ICRR, The University of Tokyo)

Gravitational-wave constraints on the GWTC-2 events by measuring the tidal deformability and the spin-induced quadrupole moment

[C1a4] \*PRITI GUPTA (KYOTO UNIVERSITY)

Impact of tidal resonances in extreme-mass-ratio inspirals

[C1a5] Norichika Sago (Kyoto University)

Oscillations in the EMRI gravitational wave phase correction as a probe of reflective boundary of the central black hole

[C1a6] \*Alejandro Torres-Orjuela (TianQin Center for Gravitational Physics)

Detecting the motion of gravitational wave sources

[C1a7] \*Lu Yin (Sogang University)

Gravitational waves from the vacuum decay with LISA

[C1a8] \*Yun Fang (Kavli Institute for Astronomy and Astrophysics, Peking University)

Tests for the existence of horizon through gravitational waves from a small binary in the vicinity of a massive object

## Parallel Session (b) (Chair: Hayato Motohashi)

10:00 – 12:00 [C1b1] \*Asuka Ito (Tokyo institute of technology)

Effects of Earth's gravity on electron (muon) g-2 measurements

[C1b2] \*Kouki Kushihara (Graduate School of Mathematics, Nagoya University)

Holographic Entanglement Entropy of deSitter Braneworld with Higher Curvature Terms

[C1b3] Atsushi Naruko (CGP, YITP, Kyoto U)

Axion Cloud Decay due to the Axion-photon Conversion with Background Magnetic Fields

[C1b4] \*Paul Martens (YITP, Kyoto University)

Reheating after relaxation of large cosmological constant

[C1b5] \*Benliang Li (southwest jiaotong university) [pre-recorded]

The Underlying Mechanisms of Time Dilation in Curved Space-Time

[C1b6] Jia-Hui Huang (South China Normal University) [pre-recorded]

Analytical study on superradiant stability of higher dimensional RN black holes

[C1b7] \*Shin'ichi Hirano (Nagoya University)

Black holes in effective field theory extension of GR with parity violating terms and scalar field

[C1b8] \*Kazufumi Takahashi (YITP, Kyoto University)

Perturbations of stealth black holes in modified gravity

#### -Parallel Session C2-

## Parallel Session (a) (Chair : Tsutomu Kobayashi)

15:30 – 16:45 [C2a1] \*Masroor Chandhanapparambil Pookkillath (Yukawa Institute for Theoretical Physics,

Kyoto University)

Minimal theory of massive gravity and constraints on the graviton mass

[C2a2] \*Reginald Christian Bernardo (Institute of Physics, Academia Sinica)

Towards well-tempered dark energy and teleparallel gravity

[C2a3] \*Pheiroijam Suranjoy Singh (Bodoland University)

Is the cosmic doomsday inevitable when the dark energy EoS parameter is less than -1?

[C2a4] \*Tiago Gonçalves (Institute of Astrophysics and Space Sciences, Faculty of Sciences of the University of Lisbon)

Accelerated cosmological expansion in f(R,T) gravity

[C2a5] \*Ricardo Landim (Technical University of Munich)

Fractional Dark Energy

# Parallel Session (b) (Chair: Teruaki Suyama)

15:30 – 16:45 [C2b1] \* Kota Hayashi (YITP, Kyoto U.)

General-relativistic neutrino-radiation magnetohydrodynamics simulations of black holeneutron star merger

[C2b2] Tomohiro Harada (Rikkyo University)

Spins of primordial black holes formed in the radiation-dominated phase of the universe: first-order effect

[C2b3] \*Ying-li Zhang (Tongji University)

The primordial power spectrum of curvature perturbations from the primordial black hole scenario

[C2b4] \*Michael Zantedeschi (Max-Planck Institute for Physics, Munich)

Primordial Black Holes from Confinement

[C2b5] \*Albert Escrivà (ULB (Brussels University))

Numerical simulations of Primordial Black Holes with non-Gaussianities

## Thursday, December 9

| 9:00 – 10:30  | Parallel Session D1 (D1a & D1b)   |
|---------------|---|
| 10:30 - 10:45 | Break   |
| 10:45 – 12:00 | Parallel Session D2 (D2a & D2b)   |
| 12:00 – 14:30 | Lunch & Poster  |
| 14:30 – 16:00 | Parallel Session D3 (D3a & D3b)   |
| 16:00 – 17:00 | Coffee & Posters  |
| 17:00 – 17:45 | Invited Talk (Chair : Yousuke Itoh) Krishnendu Naderi Varium "Tests of general relativity with gravitational waves" |
| 17:45 –       | SOC Meeting   |

#### -Parallel Session D1-

# Parallel Session (a) (Chair: Katsuki Aoki)

9:00 – 10:30 [D1a1] Shun Arai (CGP, YITP)

Gradient expansion approach for generic scalar-tensor theories

[D1a2] \*Aya Iyonaga (Rikkyo University)

Distinguishing modified gravity with just two tensorial degrees of freedom from general relativity: cosmology

[D1a3] \*Hiroaki Tahara (Rikkyo University)

Higher-order terms in Einstein-Aether theory with parity violation

[D1a4] \*Taisuke Matsuda (YITP)

Cosmological memory effect in scalar-tensor gravity

[D1a5] \* Zhi-Bang Yao (Sun Yat-sen University) [pre-recorded]

Minimal theory of single and bi-metric gravity with multiple auxiliary constraints

[D1a6] \*Yu-min Hu (Sun Yat-sen University) [pre-recorded]

Building ghost-free scalar-tensor theories from spatially covariant gravity

#### Parallel Session (b) (Chair: Umpei Miyamoto)

9:00 – 10:30 [D1b1] \*Kazushige Ueda (Kyushu University)

Numerical Investigation of Quasi-normal Mode in Kerr-AdS\_5 Black Hole

[D1b2] \*Ryotaku Suzuki (Toyota Technological Institute)

Squashed black holes at large D

[D1b3] \*Daiki Saito (Nagoya University)

False Vacuum Decay in Rotating Spacetimes

[D1b4] \*Sebastian Bahamonde (Tokyo Institute of Technology)

Black holes solutions in metric-affine gravity with dynamical torsion and nonmetricity

#### -Parallel Session D2-

Parallel Session (a) (Chair : Shuichiro Yokoyama)

10:45 – 12:00 [D2a1] Kazuharu Bamba (Fukushima University) [pre-recorded]

Generation of magnetic fields from the coupling of electromagnetic fields with a higher curvature term in inflationary cosmology

[D2a2] \*Kanji Nishii (Kobe Univ.)

String Excitation by Initial Singularity of Inflation

[D2a3] Yuichiro Tada (Nagoya University)

Probability density functions of coarse-grained curvature and density perturbations in stochastic inflation

[D2a4] \*Jason Kristiano (RESCEU, The University of Tokyo)

Theoretical bound of primordial non-Gaussianity in single field inflation

[D2a5] \*Taiga Hasegawa (Yamaguchi University)

Eisenhart-Duval lift for minisuperspace quantum cosmology

#### Parallel Session (b) (Chair: Kunihito Uzawa)

10:45 – 12:00 [D2b1] Keiju Murata (Nihon University)

Superradiant instability of Myers-Perry black strings

[D2b2] Takaaki Ishii (Rikkyo University)

Helical black strings from superradiant instability

[D2b3] \*Hidetoshi Omiya (Kyoto U)

Adiabatic evolution of the strongly self-interacting axion cloud

[D2b4] \*Takuya Takahashi (Kyoto University)

Can we detect the signature of axion clouds in black hole binaries?

[D2b5] \*Takeshi Shinohara (Nagoya Univ. Mathematics)

Divergence equations and uniqueness theorem of static spacetimes with conformal scalar hair

#### -Parallel Session D3-

## Parallel Session (a) (Chair: Tomo Takahashi)

14:30 – 16:00 [D3a1] \*Yo Toda (Hokkaido University)

Hubble tension with an extra radiation and neutrino degeneracy

[D3a2] \*Shao-Jiang Wang (Institute of Theoretical Physics, Chinese Academy of Sciences) Improved no-go argument from inverse distance ladder

[D3a3] \*Ippei Obata (MPA, Germany)

Cosmic birefringence measurement and its implications for the axion search

[D3a4] \*Jackson Levi Said (University of Malta)

Model-Independent Techniques to Reconstructing Late-Time Cosmological Data

[D3a5] Riccardo Della Monica (Universidad de Salamanca)

Orbital precession of the S2 star in Scalar-Tensor-Vector-Gravity

[D3a6] Takashi Hiramatsu (Rikkyo University)

CMB constraints on a subclass of DHOST theories

# Parallel Session (b) (Chair: Keisuke Izumi)

14:30 – 16:00 [D3b1] \*Sofia Di Gennaro (Yangzhou University) [pre-recorded]

Maximum Force and Black Hole Thermodynamic Instability

[D3b2] \*Che-Yu Chen (Institute of Physics, Academia Sinica)

Testing equatorial reflection symmetry of rotating black holes

[D3b3] \*Hsu-Wen Chiang (LeCosPA, National Taiwan University)

Would gravitational wave implosion around a central black hole generate horizon deformation akin to supertranslation?

[D3b4] \*Timothy Anson (ITMP, Moscow)

Disforming the Kerr metric

[D3b5] \*Masato Minamitsuji (CENTRA, IST, U-Lisboa) [pre-recorded]

Black holes in the extended vector-tensor theories

## Friday, December 10

9:00 – 9:45 Invited Talk (Chair : Jun'ichi Yokoyama)

Yu-tin Huang

"Classical BH dynamics from scattering amplitudes"

9:45 - 10:00 Break

10:00 - 12:00 Session E

12:00 – 13:00 Awards by Shinji Tsujikawa

Closing Remark by Takahiro Tanaka

#### - Session E- (Chair: Ken-ichi Nakao)

[E1] Yoshimune Tomikawa (Matsuyama University)

On uniqueness of static spacetime with conformal scalar in higher dimensions

[E2] Kohei Kamada (RESCEU)

wash-in leptogenesis and its application

[E3] Kunihito Uzawa (Hirosaki University)

Dynamical brane on orbifold

[E4] Sebastian Garcia-Saenz (SUSTech)

A new class of vector-tensor theories and its cosmology

[E5] Hayato Motohashi (Kogakuin University)

Exact solution for wave scattering from black holes

[E6] Hideki Maeda (Hokkai-Gakuen University)

Quest for realistic non-singular black-hole geometries: Regular-center type

[E7] Sousuke Noda (National Institute of Technology, Miyakonojo College)

Alfvenic superradiance in a force-free magnetosphere of a Kerr black hole

#### - Poster presentations-

[P1] \*Shingo Akama (Rikkyo University)

Non-Bunch-Davies effect on primordial tensor non-Gaussianities in beyond GLPV theories

[P2] \*ZhenYuan WU (Yamaguchi University)

Antipodal correlation of the inflationary primordial gravitational waves

[P3] \*Akira Dohi (Kyushu University)

Neutron Star Cooling in Scalar-Tensor Theories

[P4] Kouji Nakamura (NAOJ, GWSP)

Proposal of a gauge-invariant treatment of I=0,1-mode perturbations on the Schwarzschild background spacetime

[P5] \*Junsei Tokuda (Kobe U.)

Gravitational positivity bounds on scalar potentials and applications to the Higgs sector

[P6] \*Keitaro Tomikawa (Rikkyo University)

Propagation of gravitational waves in an inhomogeneous universe in modified gravity

[P7] \*Kota Ogasawara (Kyoto University)

Photon escape in the extremal Kerr black hole spacetime

[P8] Masato Nozawa (Osaka Institute of Technology)

Gauged supergravities in six dimensions from orientifold compactifications

[P9] \*Ken Matsuno (Osaka City University)

Hawking radiation from squashed Kaluza-Klein black holes with quantum gravity effects

[P10] Takashi Mishima (Nihon University)

Nonlinear behavior of new cylindrically symmetric waves of Einstein-Maxwell system

[P11] \*Tatsuki Kodama (Saga University)

Relaxing inflation models with non-minimal coupling: A general study

[P12] \*Seiga SATO (Waseda University)

Predicting complex trajectories around Kerr black hole via deep learning

[P13] Yuuki Sugiyama (Kyushu University)

The effect of dynamical electromagnetic fields on entanglement

[P14] Yong Song (University of Science and Technology of China)

The evolutions of the innermost stable circular orbits in dynamical spacetimes

[P15] Takahiro Tanaka (Kyoto University)

Simple justification of ¥delta N formalism and its generalization

[P16] Shinya Tomizawa (Toyota Technological Institute)

Angular momenta in microstate geometries and black holes in five dimensions

[P17] Shinpei Tonosaki (Hirosaki University)

A master hydrostatic equation for Newtonian stars in generic higher-curvature gravity

[P18] Tsutomu Kobayashi (Rikkyo University)

Black holes in spatially covariant gravity with two tensorial degrees of freedom

[P19] Chulmoon Yoo (Nagoya Univ.)

Simulation of PBH formation from iso-curvature perturbations

[P20] \*Yosuke Mishima (Rlkkyo University)

Preferred frame effects for nonluminal GWs in pulsar timing arrays

[P21] \*Taishi Ikeda (Sapienza University of Rome)

Black hole eating boson stars

[P22] \*Koki Tokeshi (The University of Tokyo)

PBH abundance revised from joint formation criteria

[P23] \*J. Fernando Abalos (CIEM-CONICET, Universidad Nacional de Córdoba (UNC))

On constraint preservation for quasi-linear first-order PDEs

[P24] \*Minxi He (KEK)

Reheating Process in Mixed Higgs-R^2 Model

[P25] \*Takumi Hayashi (RESCEU)

Vacuum decay with the Lorentzian path integral