

The 18th Workshop on General Relativity and Gravitation in Japan (JGRG18)

17-21 November 2008
Faculty Club, Hiroshima University
Hiroshima, Japan

— Scientific Program (Oral Presentation) —

Invited talk 50 min + 10 min discussions
Invited talk 35 min + 10 min discussions
Oral (long) 20 min + 10 min discussions
Oral 12 min + 3 min discussions

— Nov. 17 (Mon.) —

12:55–13:00 Opening remark

[Chair: Misao Sasaki]

13:00–14:00 Kazuya Koyama (Portsmouth, UK)
“Modified gravity as an alternative to dark energy”

14:00–14:15 Masashi Oasa (Waseda University)
“Post-Newtonian parameters and constraints on TeVeS theory”

14:15–14:30 Tsutomu Kobayashi (Waseda University)
“Relativistic stars in $f(R)$ gravity, and absence thereof”

14:30–14:45 Masumi Kasai (Hirosaki University)
“Inhomogeneous Interpretation on The Supernova Legacy Survey Data”

14:45–15:00 Chul-Moon Yoo (Asia Pacific Center for Theoretical Physics)
“Solving the Inverse Problem with Inhomogeneous Universes
—Toward a test of the Copernican principle—”

— coffee & posters —

[Chair: Takahiro Tanaka]

15:30–15:45 Keisuke Izumi (Kyoto University)

“Massive spin-2 ghost in de Sitter spacetime”

15:45–16:00 Shunichiro Kinoshita (The University of Tokyo)

“Thermodynamic and dynamical stability of Freund-Rubin compactification”

16:00–16:15 Norihiro Tanahashi (Kyoto University)

“Initial data of black hole localized on Karch-Randall brane”

16:15–16:30 Tatsuhiko Koike (Keio University)

“Systematic construction of classical string solutions”

16:30–16:45 Makoto Tanabe (Waseda University)

“Non-BPS Rotating Black Hole and Black String by Intersecting M-branes”

16:45–17:00 Kunihiro Uzawa (Osaka City University)

“Classification of dynamical intersecting brane solutions”

17:00–17:15 Peter Hogan (Tohoku University)

“On The Motion of a Small Charged Black Hole in General Relativity”

— Nov. 18 (Tue.) —

[Chair: Jiro Soda]

9:00–10:00 Gary Shiu (Wisconsin-Madison, USA)

“String Inflation: an Update”

10:00–10:15 Kohei Kamada (RESCEU, The University of Tokyo)

“Can dissipative effects help the MSSM inflation?”

10:15–10:30 Ryo Saito (RESCEU)

“Gravitational-Wave Constraints on Abundance of Primordial Black Holes”

10:30–10:45 Yuko Urakawa (Waseda University)

“A solution to the IR divergence problem of interacting inflaton field”

— coffee & posters —

[Chair: Jun’ichi Yokoyama]

11:15–11:30 Masashi Kimura (Osaka City University)

“Anisotropic inflation from vector impurity”

11:30–11:45 Masahiro Nakashima (RESCEU)

“WMAP-5yr Constraint on the Varying Fine Structure Constant”

11:45–12:00 Takeshi Kobayashi (The University of Tokyo)

“Conformal Inflation, Modulated Reheating, and WMAP5”

12:00–12:15 Masakazu Sano (Hokkaido University)

“Moduli fixing in Brane gas cosmology”

12:15–12:30 Daisuke Yamauchi (YITP, Kyoto University)

“Open inflation in string landscape”

12:30–12:45 Masaki Satoh (Kyoto University)

“Higher Curvature Corrections to Primordial Fluctuations in Slow-roll Inflation”

— Lunch time —

[Chair: Takeshi Chiba]

14:15–14:30 Atsushi Naruko (Kyoto University)

“Large non-Gaussianity from multi-brid inflation”

- 14:30–14:45** Tomo Takahashi (Saga University)
“Non-Gaussianity in the Curvaton Scenario”
- 14:45–15:00** Kazunori Nakayama (ICRR, University of Tokyo)
“Non-Gaussianity from Isocurvature Perturbations”
- 15:00–15:15** Takashi Hiramatsu (ICRR, University of Tokyo)
“Non-linear evolution of density power spectrum in a closure theory”
- 15:15–15:30** Shuntaro Mizuno (RESCEU)
“Non-gaussianity from the bispectrum in general multiple field inflation”
- coffee & posters —
- [Chair: Hideo Kodama]
- 16:00–16:15** Shuichiro Yokoyama (Nagoya University)
“Primordial Trispectrum in Multi-Scalar Inflation”
- 16:15–16:30** Yuichi Takamizu (Waseda University)
“Nonlinear superhorizon perturbations of non-canonical scalar”
- 16:30–16:45** Wonwoo Lee (CQUeST, Sogang University)
“The vacuum bubble and black hole pair creation”
- 16:45–17:00** Babak Vakili (IAU, Iran)
“Deformed phase space and canonical quantum cosmology”
- 17:00–17:15** Shintaro Sawayama (Sawayama Cram School of Physics)
“Entanglement of universe”

— Nov. 19 (Wed.) —

[Chair: Ken-ichi Oohara]

9:00–10:00 Koji Yoshimura (KEK, Japan)

“Cosmic-ray antiparticles as a probe of early universe”

10:00–11:00 Kazunori Kohri (Lancaster, UK)

“Long-lived particles and cosmology in supergravity”

— coffee & posters —

[Chair: Naoki Seto]

11:30–11:45 Yuichiro Sekiguchi (National Astronomical Observatory of Japan)

“Towards clarifying the central engine of long gamma-ray bursts”

11:45–12:00 Takamitsu Horiguchi (Nagoya University)

“Particle acceleration in force-free magnetospheres around rotating black holes
– the outer gap models –”

12:00–12:15 Taichi Kobayashi (Nagoya University)

“Super-radiance of electromagnetic radiation from disk surface around Kerr
black hole”

12:15–12:30 Roman Konoplya (Kyoto University)

“Particles motion near the magnetized black hole surrounded by a toroidal
distribution of matter”

12:30–12:45 Motoyuki Saijo (Rikkyo University)

“Faraday Resonance in Dynamically Bar Unstable Stars”

— Lunch time —

[Chair: Kunihito Ioka]

14:15–15:00 Yasushi Fukazawa (Hiroshima Univ.)

“Current status of Fermi Gamma-ray Space Telescope”

15:00–15:45 Markus Ackermann (SLAC, USA)

“First results and future prospects of the Fermi Large Area Telescope”

15:45–16:00 Yosuke Takamori (Osaka City University)

“Can the Blandford-Znajek monopole solution extend beyond the inner light
surface?”

16:00–16:15 Hideki Asada (Hirosaki University)
“Perturbation theory of N point-mass gravitational lens”

16:15–16:30 Fabio Scardigli (National Taiwan University)
“Glimpses on the micro black hole Planck phase”

16:30–18:00 Poster session

18:00– Conference Dinner

— Nov. 20 (Thu.) —

[Chair: Hideki Asada]

9:00–10:00 Luciano Rezzolla (AEI, Germany)

“Modeling black holes and neutron stars as sources of gravitational waves”

10:00–10:15 Yuji Torigoe (Hirosaki University)

“Gravitational radiation by celestial bodies in various orbits”

10:15–10:30 Kenta Kiuchi (Waseda University)

“Long term simulation of binary neutron star merger”

10:30–10:45 Jakob Hansen (Waseda University)

“Passage of radiation through wormholes”

— coffee & posters —

[Chair: Ken-ichi Nakao]

11:15–11:45 Naoki Seto (NAOJ)

“Science with space gravitational wave detectors”

11:45–12:00 Kent Yagi (Kyoto University)

“Stringent Constraints on Brans-Dicke Parameter using 0.1Hz Gravitational Wave Interferometers”

12:00–12:15 Luca Baiotti (University of Tokyo)

“Inspiralling neutron-star binaries”

12:15–12:30 Kenta Hioki (Waseda University)

“Hidden symmetries and photon capture in rotating dilaton black holes”

12:30–12:45 Takashi Tamaki (Waseda University)

“Gravitating Q-balls and their stabilities”

— Lunch time —

[Chair: Tetsuya Shiromizu]

14:15–14:45 Hideo Kodama (IPNS, KEK)

“Repulsons in the Myers-Perry family”

14:45–15:00 Amitabha Lahiri (S.N.Bose National Centre for Basic Sciences)

“Black hole no-hair theorems for positive Lambda”

15:00–15:15 Ishwaree Neupane (University of Canterbury)
“Viscosity and Entropy Bounds from Black Hole Physics”

15:15–15:30 Ryotaku Suzuki (Kyoto University)
“Phase transition on AdS Kerr-Newman Black holes”

15:30–15:45 Kazumi Kashiyama (Kyoto University)
“Analytic approach to the Hawking Page transition”

— coffee & posters —

[Chair: Yasusada Nambu]

16:15–16:30 Keiju Murata (Kyoto University)
“Phase Transitions of Charged Kerr-AdS Black Holes from Gauge Theories”

16:30–16:45 Tomohiro Harada (Rikkyo University)
“Gravitational collapse of a dust ball from a perspective of loop quantum gravity: application”

16:45–17:00 Masahiro Shimano (Rikkyo University)
“The scalar field potential of the super-inflation in Loop Quantum Cosmology”

— Nov. 21 (Fri.) —

[Chair: Kei-ichi Maeda]

9:00–10:00 Roerto Emparan (Barcelona Spain)

“New phases of black holes in higher dimensions”

10:00–10:15 Olexandr Zhydenko (Universidade de Sao Paulo)

“Black string perturbations and the Gregory-Laflamme instability”

10:15–10:30 Antonino Flachi (YITP, Kyoto University)

“Signatures of spinning evaporating micro black holes”

10:30–10:45 Akihiro Ishibashi (KEK)

“Extremal Black Holes in Higher Dimensions and Symmetries”

— coffee & posters —

[Chair: Shinji Mukohyama]

11:15–11:30 Hiromi Saida (Daido Inst. of Tech.)

“Does the Entropy-Area law hold for Schwarzschild-de Sitter spacetime ? ”

11:30–11:45 Tomo Tanaka (Waseda University)

“Black hole entropy for the general area spectrum”

11:45–12:00 Takahisa Igata (Osaka City University)

“Killing Tensors and Constants of Motion of a Charged Particle”

12:00–12:15 Motomu Tsuda (Saitama Institute of Technology)

“Nonlinear supersymmetric general relativity and origin of mass”