

List of Publications

May 25, 2011

Refereed Journals

- ★69. **Dominance of gauge artifact in the consistency relation.**
Takahiro Tanaka, Yuko Urakawa
JCAP 1105:014, 2011. [arXiv:1103.1251 [astro-ph.CO]]
- 68. **Primordial non-Gaussianities in general modified gravitational models of inflation.**
Antonio De Felice, Shinji Tsujikawa
JCAP 1104 (2011) 029 [arXiv:1103.1172 [astro-ph.CO]].
- 67. **A note on the role of the boundary terms for the non-Gaussianity in k-inflation.**
Frederico Arroja, Takahiro Tanaka
JCAP 1105:005, 2011 [arXiv:1103.1102 [astro-ph.CO]]
- 66. **Number-Theory Dark Matter**
K. Nakayama, F. Takahashi, T. T. Yanagida,
Phys.Lett. B699 :360-363, 2011. [arXiv:1102.4688 [hep-ph]].
- 65. **A covariant approach to general field space metric in multi-field inflation**
Jinn-Ouk Gong, Takahiro Tanaka,
JCAP 1103: 015, 2011. [arXiv:1101.4809 [astro-ph.CO]]
- ★64. **Why have supersymmetric particles not been observed?**
F. Takahashi, T.T. Yanagida,
Phys.Lett. B698: 408-410, 2011. .[arXiv:1101.0867 [hep-ph]].
- ★63. **The Gravitational Lensing Effect on the CMB Polarisation Anisotropy in the Lambda-LTB Model.”**
H. Goto, H. Kodama,
Prog. Theor. Phys. 125: 815-836, 2011. [arXiv:1101.0476 [astro-ph.CO]]
- 62. **Brane Holes**
V. Frolov, S. Mukohyama,
Phys. Rev. D83, 044052:1-12, 2011 [arXiv:1012.4541 [hep-th]]
- ★61. **Higgs G-inflation**
K. Kamada, T. Kobayashi, M. Yamaguchi, J. Yokoyama,
Phys. Rev. D 83: 083515, 2011. [arXiv:1012.4238 [astro-ph.CO]]
- *60. **Strong dynamics at the Planck scale as a solution to the cosmological moduli problem**

- F. Takahashi, T.T. Yanagida,
JHEP 1101:139, 2011. [arXiv:1012.3227 [hep-ph]]
- 59. Chiral Modulations in Curved Space I: Formalism**
A Flachi, T Tanaka,
JHEP 1102: 026, 2011. [arXiv:1012.0463 [hep-th]]
- 58. Destruction of ${}^7\text{Be}$ in big bang nucleosynthesis via long-lived sub-strongly interacting massive particles as a solution to the Li problem,"**
M. Kawasaki, M. Kusakabe,
Phys. Rev. D 83: 055011, 2011. [arXiv:1012.0435 [hep-ph]].
- 57. Matter perturbations in Galileon cosmology"**
A. De Felice, R. Kase, S. Tsujikawa,
Phys.Rev. D83: 043515, 2011. [arXiv:1011.6132 [astro-ph.CO]]
- 56. Full nonlinear growing and decaying modes of superhorizon curvature perturbations.**
Y. Takamizu, J. Yokoyama,
Phys.Rev. D83: 043504, 2011. [arXiv:1011.4566 [astro-ph.CO]]
- 55. Running Spectral Index from Inflation with Modulations**
T. Kobayashi , F. Takahashi,
JCAP 1101:026, 2011. [arXiv:1011.3988 [astro-ph.CO]]
- ★**54. Imprints of Anisotropic Inflation on the CMB**
M Watanabe, S Kanno, J Soda,
Mon. Not. Roy. Astron. Soc. 412:L83-L87, 2011 [arXiv:1011.3604 [astro-ph.CO]]
- 53. The gravitino problem in supersymmetric warm inflation**
J. C.Bueno Sanchez, M. Bastero-Gil, A. Berera, K. Dimopoulos, K. Kohri,
JCAP 1103:020, 2011. [arXiv:1011.2398 [hep-ph]].
- ★**52. Anisotropic Power-law Inflation**
Sugumi Kanno, Jiro Soda, Masa-aki Watanabe,
JCAP 1012:024, 2010. [arXiv:1010.5307 [hep-th]]
- ★**51. A theory of extra radiation in the Universe**
K. Nakayama, F. Takahashi, T.T. Yanagida,
Phys.Lett. B697:275-279, 2011. [arXiv:1010.5693 [hep-ph]]
- 50. Chameleon dark energy models with characteristic signatures**
R. Gannouji, B. Moraes, D. F. Mota, D. Polarski, S. Tsujikawa, H. A. Winther,
Phy. Rev. D 82:124006, 2010. [arXiv: 1010.3769 [astro-ph.CO]]
- 49. Kahler moduli double inflation**
M. Kawasaki, K. Miyamoto,

- JCAP 1102 :004, 2011. [arXiv:1010.3095 [astro-ph.CO]].
48. **Observational constraints on Galileon cosmology.**
Savvas Nesseris, Antonio De Felice, [Shinji Tsujikawa](#),
Phys.Rev. D82:124054, 2010. [arXiv:1010.0407 [astro-ph.CO]]
47. **General Analysis of Inflation in the Jordan frame Supergravity.**
[Kazunori Nakayama](#), [Fuminobu Takahashi](#),
JCAP 1011: 039, 2010. [arXiv:1009.3399 [hep-ph]]
- ★46. **Natural selection of inflationary vacuum required by infra-red regularity and gauge-invariance.**
Yuko Urakawa, [Takahiro Tanaka](#),
Prog. Theor. Phys., to be published. [arXiv:1009.2947 [hep-th]]
45. **Ghost condensation and CPT violation in neutrino sector.**
[Shinji Mukohyama](#), Seong Chan Park,
Phys.Lett. B696:505-508, 2011. [arXiv:1009.1251 [hep-ph]]
- *44. **Inflation from a Supersymmetric Axion Model.**
[Masahiro Kawasaki](#), Naoya Kitajima, [Kazunori Nakayama](#),
Phys.Rev. D82:123531. 2010. [arXiv:1008.5013 [hep-ph]]
43. **Higgs Chaotic Inflation in Standard Model and NMSSM.**
[Kazunori Nakayama](#), [Fuminobu Takahashi](#),
JCAP 1102: 010, 2011. [arXiv:1008.4457 [hep-ph]]
42. **Hilltop Supernatural Inflation and Gravitino Problem.**
[Kazunori Kohri](#), Chia-Min Lin,
JCAP 1011: 010, 2010. [arXiv:1008.3200 [hep-ph]]
- ★41. **Running Kinetic Inflation.**
[Kazunori Nakayama](#), [Fuminobu Takahashi](#),
JCAP 1011:009, 2010. [arXiv:1008.2956 [hep-ph]]
- ★40. **Catastrophic Instability of Small Lovelock Black Holes.**
Tomohiro Takahashi, [Jiro Soda](#),
Prog.Theor.Phys. 124:711-729, 2010. [arXiv:1008.1618 [gr-qc]]
39. **Affleck-Dine baryogenesis with modulated reheating.**
Kohei Kamada, [Kazunori Kohri](#), Shuichiro Yokoyama,
JCAP 1101: 027, 2011. [arXiv:1008.1450 [astro-ph.CO]]
38. **Non-Gaussianity from Lifshitz Scalar.**
Keisuke Izumi, Takeshi Kobayashi, [Shinji Mukohyama](#),
JCAP 1010: 031, 2010. [arXiv:1008.1406 [hep-th]]
37. **Master Equations for Gravitational Perturbations of Lovelock Black Holes in Higher**

Dimensions.

Tomohiro Takahashi, Jiro Soda,

Prog.Theor.Phys. 124:911-924, 2010. [arXiv:1008.1385 [gr-qc]]

★36. **G-inflation: Inflation driven by the Galileon field.**

Tsutomu Kobayashi, Masahide Yamaguchi, Jun'ichi Yokoyama,

Phys.Rev.Lett. 105 :231302, 2010. [arXiv:1008.0603 [hep-th]]

35. **Horava-Lifshitz Cosmology: A Review.**

Shinji Mukohyama,

Class.Quant.Grav. 27: 223101, 2010. [arXiv:1007.5199 [hep-th]]

34. **Constraint on the gravitino mass in hybrid inflation.**

Kazunori Nakayama, Fuminobu Takahashi, Tsutomu T. Yanagida,

JCAP 1012: 010, 2010. [arXiv:1007.5152 [hep-ph]]

33. **Stability of Holographic Superconductors.**

Sugumi Kanno, Jiro Soda,

Phys.Rev. D82: 086003, 2010. [arXiv:1007.5002 [hep-th]]

32. **Cosmology of a covariant Galileon field.**

Antonio De Felice, Shinji Tsujikawa,

Phys. Rev. Lett. 105: 111301, 2010 [arXiv:1007.2700]

★31. **IR divergence does not affect the gauge-invariant curvature perturbation.**

Yuko Urakawa, Takahiro Tanaka,

Phys.Rev. D82: 121301, 2010. [arXiv:1007.0468 [hep-th]]

★30. **Linear Inflation from Running Kinetic Term in Supergravity.**

F Takahashi,

Phys.Lett.B693:140-143, 2010. [arXiv:1006.2801]

29. **Dark Matter from Split Seesaw.**

A Kusenko, F Takahashi, TT Yanagida,

Phys.Lett.B693:144-148, 2010. [arXiv:1006.1731]

★28. **Density perturbations in general modified gravitational theories.**

A De Felice, S Mukohyama, S Tsujikawa,

Phys.Rev.D82:023524, 2010. [arXiv:1006.0281]

27. **Matter power spectrum in f(R) gravity with massive neutrinos.**

H Motohashi, AA Starobinsky, J Yokoyama,

Prog.Theor.Phys. 124:541-546, 2010. [arXiv:1005.1171]

26. **Hawking Radiation from Fluctuating Black Holes.**

T Takahashi, J Soda,

Class.Quant.Grav.27:175008, 2010 .[arXiv:1005.0286]

25. **Discrete R Symmetries and Domain Walls.**
M Dine, F Takahashi, TT Yanagida,
JHEP 1007:003, 2010 .[arXiv:1005.3613]
24. **Probing Variant Axion Models at LHC.**
CR Chen, PH Frampton, F Takahashi, TT Yanagida,
JHEP 1006:059, 2010. [arXiv:1005.1185]
23. **Generalized Brans-Dicke theories.**
A De Felice, S Tsujikawa,
JCAP 1007:024, 2010. [arXiv:1005.0868]
22. **Geometrically Consistent Approach to Stochastic DBI Inflation.**
L Lorenz, J Martin, J Yokoyama,
Phys.Rev.D82:023515, 2010. [arXiv:1004.3734]
- *21. **Analytic formulae for the off-center CMB anisotropy in a general spherically symmetric universe.**
H Kodama, K Saito, A Ishibashi,
Prog.Theor.Phys.124:163-180, 2010. [arXiv:1004.3089]
20. **Non-Gaussianity of superhorizon curvature perturbations beyond δN formalism.**
Y Takamizu, S Mukohyama, M Sasaki, Y Tanaka,
JCAP 1006:019, 2010. [arXiv:1004.1870]
19. **Trispectrum from Ghost Inflation.**
K Izumi, S Mukohyama,
JCAP 1006:016, 2010. [arXiv:1004.1776]
18. **Use of delta N formalism.**
T Tanaka, T Suyama, S Yokoyama,
Class.Quant.Grav.27:124003, 2010 [arXiv:1003.5057]
- ★17. **B-mode polarization induced by gravitational waves from kinks on infinite cosmic strings.**
M Kawasaki, K Miyamoto, K Nakayama,
Phys.Rev. D82 :103504, 2010. [arXiv:1003.3701]
16. **Numerical study of Q-ball formation in gravity mediation.**
T Hiramatsu, M Kawasaki, F Takahashi,
JCAP 1006:008, 2010. [arXiv:1003.1779]
15. **Effects of Light Fields During Inflation.**
T Kobayashi, S Mukohyama,
Phys.Rev.D81:103504, 2010 [arXiv:1003.0076]
14. **The Nature of Primordial Fluctuations from Anisotropic Inflation.**

- M Watanabe, S Kanno, J Soda,
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13. **f(R) theories.**
Antonio De Felice, Shinji Tsujikawa,
Living Rev.Rel.13:3, 2010. [arXiv:1002.4928] (Review, 136pp)
 12. **Analytic formulae for CMB anisotropy in LTB cosmology.**
Keiki Saito, Akihiro Ishibashi, Hideo Kodama,
Prog. Theor. Phys. 124:163-180, 2010. [arXiv:1002.3855 [astro-ph.CO]]
 11. **Gravitational Waves from Collapsing Domain Walls.**
T Hiramatsu, M Kawasaki, K Saikawa,
JCAP 1005:032, 2010. [arXiv:1002.1555]
 10. **Phantom boundary crossing and anomalous growth index of fluctuations in viable f(R) models of cosmic acceleration.**
H. Motohashi, A.A. Starobinsky, J. Yokoyama,
Prog.Theor.Phys.123:887-902, 2010. [arXiv:1002.1141 [astro-ph.CO]]
 9. **Gravitational waves from kinks on infinite cosmic strings.**
M. Kawasaki, K. Miyamoto, K. Nakayama,
Phys.Rev.D81:103523, 2010. [arXiv:1002.0652]
 8. **Ghost Dark Matter.**
T. Furukawa, S. Yokoyama, K. Ichiki, N. Sugiyama, S. Mukohyama,
JCAP 1005:007, 2010. [arXiv:1001.4634]
 7. **Primordial Black Holes as All Dark Matter.**
P.H. Frampton, M. Kawasaki, F. Takahashi, T.T. Yanagida,
JCAP 1004:023, 2010. [arXiv:1001.2308]
 6. **Gravitational-Wave Constraints on the Abundance of Primordial Black Holes.**
R. Saito, J. Yokoyama,
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 5. **Cosmic Discordance: Detection of a modulation in the primordial fluctuation spectrum.**
K. Ichiki, R. Nagata, J. Yokoyama,
Phys.Rev.D81:083010, 2010. [arXiv:0911.5108]
 - ★4. **Stellar center is dynamical in Horava-Lifshitz gravity.**
K. Izumi, S. Mukohyama,
Phys.Rev.D81:044008, 2010. [arXiv: 0911.1814]
 3. **Matter instabilities in general Gauss-Bonnet gravity.**
Antonio De Felice, David F. Mota, Shinji Tsujikawa,

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2. Gamma-ray Constraints on Hadronic and Leptonic Activities of Decaying Dark Matter.

C-R. Chen, S.V. Mandal, [F. Takahashi](#)

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1. Cosmological Magnetic Fields from Inflation and Backreaction.

S. Kanno, [J. Soda](#), M. Watanabe,

JCAP 0912:009 , 2009. [arXiv: 0908.3509]

School Lectures

Modified gravity models of dark energy

[S. Tsujikawa](#),

Lect. Notes. Phys. 800, 99 (2010) [arXiv: 1101.0191 [gr-qc]]

AdS/CFT on the brane.

[J. Soda](#),

Lectures given at 5th Aegean Summer School: FROM GRAVITY TO THERMAL GAUGE THEORIES: THE AdS/CFT CORRESPONDENCE, Adamas, Milos Island, Greece, 21-26 Sep 2009. [arXiv:1001.1011]

Proceedings

Thermodynamics in Modified Gravity Theories

K. Bamba, C.-Q. Geng, [S. Tsujikawa](#),

2nd International Workshop On Dark Matter, Dark Energy And Matter-Antimatter Asymmetry, 5-6 Nov 2010, Hsinchu, Taiwan

[arXiv:1101.3628 [gr-qc]].

Spin-2 Ghost In Brane Gravity

Takahiro Tanaka,

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Phantom behaviour and growth index anomalous evolution in viable $f(R)$ gravity models.

H. Motohashi, A. A. Starobinsky, J. Yokoyama,

Proceedings of the 19th Workshop on General Relativity and Gravitation in Japan,
239-242 (2010) <http://www2.rikkyo.ac.jp/web/jgrg19/index.html>
arXiv:1002.0462 [astro-ph.CO]

Analytic formulae for CMB anisotropy in LTB cosmology.

Keiki Saito, Akihiro Ishibashi, Hideo Kodama,
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