PHYSICAL REVIEW D™

For editorial and subscription correspondence, please see inside front cover
(ISSN: 1550-7998)

PERIODICALS

Postmaster send address changes to:

APS Subscription Services
P.O. Box 41
Annapolis Junction, MD 20701

THIRD SERIES, VOLUME 90, NUMBER 4 *CONTENTS* **D15 AUGUST 2014**

The Table of Contents is a total listing of Parts A and B.
Part A consists of articles 041301–044037, and Part B articles 044038–049904(E)

PART A

RAPID COMMUNICATIONS

Faraday scaling and the BICEP2 observations *(5 pages)* ..... 041301(R)
Massimo Giovannini

Explaining the spectra of cosmic ray groups above the knee by escape from the Galaxy *(6 pages)* ..... 041302(R)
G. Giacinti, M. Kachelrieß, and D. V. Semikoz

Natural inflation in supergravity and beyond *(5 pages)* ..... 041303(R)
Renata Kallosh, Andrei Linde, and Bert Vercnocke

Stationary black holes with time-dependent scalar fields *(5 pages)* ..... 041501(R)
Alexander A. H. Graham and Rahul Jha

High resolution numerical relativity simulations for the merger of binary magnetized neutron stars *(5 pages)* ..... 041502(R)
Kenta Kiuchi, Koutarou Kyutoku, Yuichiro Sekiguchi, Masaru Shibata, and Tomohide Wada

Quantum dimension as entanglement entropy in two dimensional conformal field theories *(5 pages)* ..... 041701(R)
Song He, Tokiro Numasawa, Tadashi Takayanagi, and Kento Watanabe

Impossibility of the strong magnetic fields generation in an electron-positron plasma *(5 pages)* ..... 041702(R)
Maxim Dvornikov

Petrov type I spacetime and dual relativistic fluids *(6 pages)* ..... 041901(R)
Rong-Gen Cai, Qing Yang, and Yun-Long Zhang

Fivebrane instantons in Calabi-Yau compactifications *(5 pages)* ..... 041902(R)
Sergei Alexandrov and Sibasish Banerjee

Universal correction to higher spin entanglement entropy *(6 pages)* ..... 041903(R)
Shouvik Datta, Justin R. David, Michael Ferlaino, and S. Prem Kumar

Entanglement entropy and negative energy in two dimensions *(5 pages)* ..... 041904(R)
Eugenio Bianchi and Matteo Smerlak

ARTICLES

Thermal noise of folding mirrors *(19 pages)* 042001
D. Heinert, K. Craig, H. Grote, S. Hild, H. Lück, R. Nawrodt, D. A. Simakov, D. V. Vasilyev, S. P. Vyatchanin, and H. Wittel

Method for all-sky searches of continuous gravitational wave signals using the frequency-Hough transform *(24 pages)* 042002
Pia Astone, Alberto Colla, Sabrina D'Antonio, Sergio Frasca, and Cristiano Palomba

Copyright 2014 American Physical Society

(Continued)

1550-7998(20140815)90:4;1-Q

Selected for a Viewpoint in *Physics*. Please visit http://physics.aps.org/.
By suggesting a few manuscripts each week, we hope to promote reading across fields. Please see our Announcement Phys. Rev. D **90**, 020001 (2014).

PHYSICAL REVIEW D THIRD SERIES, VOLUME 90, NUMBER 4 D15 AUGUST 2014

Data series subtraction with unknown and unmodeled background noise *(15 pages)* 042003
Stefano Vitale, Giuseppe Congedo, Rita Dolesi, Valerio Ferroni, Mauro Hueller, Daniele Vetrugno, William Joseph Weber, Heather Audley, Karsten Danzmann, Ingo Diepholz, Martin Hewitson, Natalia Korsakova, Luigi Ferraioli, Ferran Gibert, Nikolaos Karnesis, Miquel Nofrarias, Henri Inchauspe, Eric Plagnol, Oliver Jennrich, Paul W. McNamara, Michele Armano, James Ira Thorpe, and Peter Wass

Modeling the nongravitational acceleration during Cassini's gravitation experiments *(8 pages)* 042004
O. Bertolami, F. Francisco, P. J. S. Gil, and J. Páramos

Constraining the gravitational wave energy density of the Universe using Earth's ring *(8 pages)* 042005
Michael Coughlin and Jan Harms

Annual modulation of cosmic relic neutrinos *(6 pages)* 043001
Benjamin R. Safdi, Mariangela Lisanti, Joshua Spitz, and Joseph A. Formaggio

Maximum strength of the magnetic field in the core of the most massive white dwarfs *(12 pages)* 043002
N. Chamel, E. Molter, A. F. Fantina, and D. Peña Arteaga

Black hole Meissner effect and entanglement *(6 pages)* 043003
Robert F. Penna

Neutrino fluxes from dark matter in the HESS J1745-290 source at the Galactic center *(10 pages)* 043004
J. A. R. Cembranos, V. Gammaldi, and A. L. Maroto

Pinpointing extragalactic neutrino sources in light of recent IceCube observations *(10 pages)* 043005
Markus Ahlers and Francis Halzen

Renormalizable toy model of massive spin-two field and new bigravity *(10 pages)* 043006
Yuichi Ohara, Satoshi Akagi, and Shin'ichi Nojiri

Restricted Weyl invariance in four-dimensional curved spacetime *(10 pages)* 043007
Ariel Edery and Yu Nakayama

Compton scattering in terrestrial gamma-ray flashes detected with the Fermi gamma-ray burst monitor *(8 pages)* 043008
Gerard Fitzpatrick, Eric Cramer, Sheila McBreen, Michael S. Briggs, Suzanne Foley, David Tierney, Vandiver L. Chaplin, Valerie Connaughton, Matthew Stanbro, Shaolin Xiong, Joseph Dwyer, Gerald J. Fishman, Oliver J. Roberts, and Andreas von Kienlin

Effects of modified gravity on *B*-mode polarization *(13 pages)* 043009
Luca Amendola, Guillermo Ballesteros, and Valeria Pettorino

Self-organized criticality in a spherically closed cellular automaton: Modeling soft gamma repeater bursts driven by magnetic reconnection *(6 pages)* 043010
Ken'ichiro Nakazato

Logarithmic corrections to $\mathcal{N} \geq 2$ black hole entropy *(16 pages)* 043011
Cynthia Keeler, Finn Larsen, and Pedro Lisbão

Propagation of superluminal PeV IceCube neutrinos: A high energy spectral cutoff or new constraints on Lorentz invariance violation *(5 pages)* 043012
Floyd W. Stecker and Sean T. Scully

Radiative thermal noise for transmissive optics in gravitational-wave detectors *(4 pages)* 043013
Sheila Dwyer and Stefan W. Ballmer

Compton scattering in strong magnetic fields: Spin-dependent influences at the cyclotron resonance *(41 pages)* 043014
Peter L. Gonthier, Matthew G. Baring, Matthew T. Eiles, Zorawar Wadiasingh, Caitlin A. Taylor, and Catherine J. Fitch

Dark energy scaling from dark matter to acceleration *(10 pages)* 043015
Jannis Bielefeld, Robert R. Caldwell, and Eric V. Linder

Covariant and gauge-invariant linear scalar perturbations in multiple scalar field cosmologies *(33 pages)* 043501
Artur Alho and Filipe C. Mena

Viable dark energy models using pseudo-Nambu-Goldstone bosons *(9 pages)* 043502
Debabrata Adak and Koushik Dutta

Classicalization of inflationary perturbations by collapse models in light of BICEP2 *(7 pages)* 043503
Suratna Das, Satyabrata Sahu, Shreya Banerjee, and T. P. Singh

Cosmological perturbations in $\overline{\text{QCD}}$-inflation: Estimates confronting the observations, including BICEP2 *(8 pages)* 043504
Ariel R. Zhitnitsky

(Continued)

Selected for a Viewpoint in *Physics*. Please visit http://physics.aps.org/.
By suggesting a few manuscripts each week, we hope to promote reading across fields. Please see our Announcement Phys. Rev. D **90**, 020001 (2014).

PHYSICAL REVIEW D THIRD SERIES, VOLUME 90, NUMBER 4 D15 AUGUST 2014

Trace-anomaly driven inflation in modified gravity and the BICEP2 result *(14 pages)* 043505
Kazuharu Bamba, R. Myrzakulov, S. D. Odintsov, and L. Sebastiani

Loops in reheating and cosmological perturbations *(11 pages)* 043506
Ali Kaya

Relic neutrinos, thermal axions, and cosmology in early 2014 *(17 pages)* 043507
Elena Giusarma, Eleonora Di Valentino, Massimiliano Lattanzi, Alessandro Melchiorri, and Olga Mena

Fitting the Fermi-LAT GeV excess: On the importance of including the propagation of electrons from dark matter *(10 pages)* 043508
Thomas Lacroix, Céline Bœhm, and Joseph Silk

Primordial tensor modes from quantum corrected inflation *(5 pages)* 043509
Jakob Joergensen, Francesco Sannino, and Ole Svendsen

Affleck-Dine baryogenesis and dark matter production after high-scale inflation *(22 pages)* 043510
Keisuke Harigaya, Ayuki Kamada, Masahiro Kawasaki, Kyohei Mukaida, and Masaki Yamada

Second order density perturbations for dust cosmologies *(19 pages)* 043511
Claes Uggla and John Wainwright

Growth of black holes in the interior of rotating neutron stars *(9 pages)* 043512
Chris Kouvaris and Peter Tinyakov

Effective field theory of cosmic acceleration: Constraining dark energy with CMB data *(12 pages)* 043513
Marco Raveri, Bin Hu, Noemi Frusciante, and Alessandra Silvestri

Primordial black holes from temporally enhanced curvature perturbation *(11 pages)* 043514
Teruaki Suyama, Yi-Peng Wu, and Jun'ichi Yokoyama

Gravitationally induced particle production: Thermodynamics and kinetic theory *(10 pages)* 043515
J. A. S. Lima and I. Baranov

Cosmological dynamics of gravitating hadron matter *(10 pages)* 043516
Fabrizio Canfora, Alex Giacomini, and Sergey A. Pavluchenko

Dwarf spheroidal galaxies and Bose-Einstein condensate dark matter *(7 pages)* 043517
Alberto Diez-Tejedor, Alma X. Gonzalez-Morales, and Stefano Profumo

Models for small-scale structure of cosmic strings: Mathematical formalism *(14 pages)* 043518
C. J. A. P. Martins, E. P. S. Shellard, and J. P. P. Vieira

Dynamical breaking of shift symmetry in supergravity-based inflation *(7 pages)* 043519
Anupam Mazumdar, Toshifumi Noumi, and Masahide Yamaguchi

Eternal Universe *(18 pages)* 043520
C. Wetterich

Does gravity's rainbow induce inflation without an inflaton? *(12 pages)* 043521
Remo Garattini and Mairi Sakellariadou

Tachyon field inflation in light of BICEP2 *(6 pages)* 043522
Kourosh Nozari and Narges Rashidi

Cosmological scenarios in modified gravity with nondynamical fields *(4 pages)* 043523
D. Bazeia, F. A. Brito, and F. G. Costa

Scattering, damping, and acoustic oscillations: Simulating the structure of dark matter halos with relativistic force carriers *(21 pages)* 043524
Matthew R. Buckley, Jesús Zavala, Francis-Yan Cyr-Racine, Kris Sigurdson, and Mark Vogelsberger

Note on the Petrov-like boundary condition at finite cutoff surface in gravity/fluid duality *(9 pages)* 043525
Yi Ling, Chao Niu, Yu Tian, Xiao-Ning Wu, and Wei Zhang

Sharp gamma-ray spectral features from scalar dark matter annihilations *(13 pages)* 043526
Alejandro Ibarra, Takashi Toma, Maximilian Totzauer, and Sebastian Wild

Can weak lensing surveys confirm BICEP2? *(7 pages)* 043527
Nora Elisa Chisari, Cora Dvorkin, and Fabian Schmidt

Thermal tachyacoustic cosmology *(5 pages)* 043528
Abhineet Agarwal and Niayesh Afshordi

Two scalar field cosmology: Conservation laws and exact solutions *(12 pages)* 043529
Andronikos Paliathanasis and Michael Tsamparlis

(Continued)



Selected for a Viewpoint in *Physics*. Please visit http://physics.aps.org/.
By suggesting a few manuscripts each week, we hope to promote reading across fields. Please see our Announcement Phys. Rev. D **90**, 020001 (2014).

PHYSICAL REVIEW D **THIRD SERIES, VOLUME 90, NUMBER 4** **D15 AUGUST 2014**

Cosmological evolutions of $F(R)$ nonlinear massive gravity *(12 pages)* 043530
De-Jun Wu

Precision cosmology with Padé rational approximations: Theoretical predictions versus observational limits *(25 pages)* 043531
Alejandro Aviles, Alessandro Bravetti, Salvatore Capozziello, and Orlando Luongo

Tensor mode backreaction during slow-roll inflation *(6 pages)* 043532
G. Marozzi and G. P. Vacca

Efficient optimal non-Gaussian CMB estimators with polarization *(13 pages)* 043533
J. R. Fergusson

Axion cold dark matter: Status after Planck and BICEP2 *(11 pages)* 043534
Eleonora Di Valentino, Elena Giusarma, Massimiliano Lattanzi, Alessandro Melchiorri, and Olga Mena

Nonlocal gravity and structure in the Universe *(5 pages)* 043535
Scott Dodelson and Sohyun Park

Nonthermal histories and implications for structure formation *(17 pages)* 043536
JiJi Fan, Ogan Özsoy, and Scott Watson

Integrated perturbation theory and one-loop power spectra of biased tracers *(23 pages)* 043537
Takahiko Matsubara

Implications of a dark sector $U(1)$ for gamma ray bursts *(4 pages)* 043538
Tom Banks, Willy Fischler, Dustin Lorshbough, and Walter Tangarife

Improving cosmic string network simulations *(14 pages)* 043539
Mark Hindmarsh, Kari Rummukainen, Tuomas V. I. Tenkanen, and David J. Weir

Measuring the angular momentum distribution in core-collapse supernova progenitors with gravitational waves *(25 pages)* 044001
Ernazar Abdikamalov, Sarah Gossan, Alexandra M. DeMaio, and Christian D. Ott

Proof of a quantum Bousso bound *(10 pages)* 044002
Raphael Bousso, Horacio Casini, Zachary Fisher, and Juan Maldacena

Born-Infeld gravity and its functional extensions *(8 pages)* 044003
Sergei D. Odintsov, Gonzalo J. Olmo, and D. Rubiera-Garcia

Orbital and epicyclic frequencies around rapidly rotating compact stars in scalar-tensor theories of gravity *(12 pages)* ... 044004
Daniela D. Doneva, Stoytcho S. Yazadjiev, Nikolaos Stergioulas, Kostas D. Kokkotas, and Tilemachos M. Athanasiadis

Energy-momentum and asymptotic geometry *(22 pages)* 044005
Adam D. Helfer

Gravitational waves with torsion in 3D *(9 pages)* 044006
M. Blagojević and B. Cvetković

Interaction of misaligned magnetospheres in the coalescence of binary neutron stars *(11 pages)* 044007
Marcelo Ponce, Carlos Palenzuela, Luis Lehner, and Steven L. Liebling

One-dimensional action for simplicial gravity in three dimensions *(15 pages)* 044008
Wolfgang M. Wieland

Wormholes and naked singularities in the complete Hořava theory *(17 pages)* 044009
Jorge Bellorín, Alvaro Restuccia, and Adrián Sotomayor

Jeans analysis in modified gravity *(12 pages)* 044010
Mahmood Roshan and Shahram Abbassi

Black holes in five-dimensional Palatini $f(R)$ gravity and implications for the AdS/CFT correspondence *(8 pages)* 044011
D. Bazeia, L. Losano, Gonzalo J. Olmo, and D. Rubiera-Garcia

Escape of charged particles moving around a weakly magnetized Kerr black hole *(13 pages)* 044012
A. M. Al Zahrani

General proof of the entropy principle for self-gravitating fluid in static spacetimes *(6 pages)* 044013
Xiongjun Fang and Sijie Gao

Lovelock black holes with nonmaximally symmetric horizons *(8 pages)* 044014
N. Farhangkhah and M. H. Dehghani

Backreaction due to quantum tunneling and modification to the black hole evaporation process *(8 pages)* 044015
Sujoy K. Modak

(Continued)

Selected for a Viewpoint in *Physics*. Please visit http://physics.aps.org/.
By suggesting a few manuscripts each week, we hope to promote reading across fields. Please see our Announcement Phys. Rev. D **90**, 020001 (2014).

PHYSICAL REVIEW D THIRD SERIES, VOLUME 90, NUMBER 4 D15 AUGUST 2014

Cosmographic bounds on the cosmological deceleration-acceleration transition redshift in $f(\mathcal{R})$ gravity *(11 pages)* 044016
Salvatore Capozziello, Omer Farooq, Orlando Luongo, and Bharat Ratra

High-order half-integral conservative post-Newtonian coefficients in the redshift factor of black hole binaries *(24 pages)* 044017
Luc Blanchet, Guillaume Faye, and Bernard F. Whiting

New effective-one-body description of coalescing nonprecessing spinning black-hole binaries *(13 pages)* 044018
Thibault Damour and Alessandro Nagar

Snyder dynamics in a Schwarzschild spacetime *(5 pages)* 044019
S. Mignemi and R. Štrajn

Conformal transformation, near horizon symmetry, Virasoro algebra, and entropy *(14 pages)* 044020
Bibhas Ranjan Majhi

Scalar field inflation and Shan-Chen fluid models *(9 pages)* 044021
Donato Bini, Andrea Geralico, Daniele Gregoris, and Sauro Succi

Minding the gap in holographic models of interacting fermions *(7 pages)* 044022
Garrett Vanacore and Philip W. Phillips

Reconstructing static spherically symmetric metrics in general relativity *(20 pages)* 044023
Sante Carloni

Phase structure of cold magnetized quark matter within the SU(3) NJL model *(11 pages)* 044024
Ana G. Grunfeld, Débora P. Menezes, Marcus B. Pinto, and Norberto N. Scoccola

Gravitational-wave flux for a particle orbiting a Kerr black hole to 20th post-Newtonian order: A numerical approach *(15 pages)* 044025
Abhay G. Shah

Towards the uniqueness of Lifshitz black holes and solitons in new massive gravity *(10 pages)* 044026
Eloy Ayón-Beato, Mokhtar Hassaïne, and María Montserrat Juárez-Aubry

Resonantly enhanced kicks from equatorial small mass-ratio inspirals *(11 pages)* 044027
Maarten van de Meent

Higher dimensional dilaton black holes in the presence of exponential nonlinear electrodynamics *(13 pages)* 044028
A. Sheykhi and A. Kazemi

Electrically charged matter in rigid rotation around magnetized black hole *(14 pages)* 044029
Jiří Kovář, Petr Slaný, Claudio Cremaschini, Zdeněk Stuchlík, Vladimír Karas, and Audrey Trova

Instability in a minimal bimetric gravity model *(11 pages)* 044030
Frank Koennig and Luca Amendola

Cosmological and solar system consequences of $f(R,T)$ gravity models *(20 pages)* 044031
Hamid Shabani and Mehrdad Farhoudi

Cosmological constant as confining U(1) charge in two-dimensional dilaton gravity *(16 pages)* 044032
Daniel Grumiller, Robert McNees, and Jakob Salzer

Probing the thermal character of analogue Hawking radiation for shallow water waves? *(21 pages)* 044033
Florent Michel and Renaud Parentani

Positive energy in quantum gravity *(8 pages)* 044034
Lee Smolin

Quantum energetic causal sets *(5 pages)* 044035
Marina Cortês and Lee Smolin

New cylindrical gravitational soliton waves and gravitational Faraday rotation *(7 pages)* 044036
Shinya Tomizawa and Takashi Mishima

Causal structures in Gauss-Bonnet gravity *(11 pages)* 044037
Keisuke Izumi

PART B

Gravity waves from the Kerr/CFT correspondence *(11 pages)* 044038
Achilleas P. Porfyriadis and Andrew Strominger

Freely moving observer in (quasi) anti–de Sitter space *(10 pages)* 044039
Slava Emelyanov

(Continued)

Selected for a Viewpoint in *Physics*. Please visit http://physics.aps.org/.
By suggesting a few manuscripts each week, we hope to promote reading across fields. Please see our Announcement Phys. Rev. D **90**, 020001 (2014).

PHYSICAL REVIEW D **THIRD SERIES, VOLUME 90, NUMBER 4** **D15 AUGUST 2014**

Singularity avoidance in quantum-inspired inhomogeneous dust collapse *(9 pages)* 044040
Yue Liu, Daniele Malafarina, Leonardo Modesto, and Cosimo Bambi

Quantum theory of the Bianchi II model *(8 pages)* 044041
Hervé Bergeron, Orest Hrycyna, Przemysław Małkiewicz, and Włodzimierz Piechocki

Stability of Reissner-Nordström black hole in de Sitter background under charged scalar perturbation *(9 pages)* 044042
Zhiying Zhu, Shao-Jun Zhang, C. E. Pellicer, Bin Wang, and Elcio Abdalla

Gravitational field of a Schwarzschild black hole and a rotating mass ring *(15 pages)* 044043
Yasumichi Sano and Hideyuki Tagoshi

Spacetime thermodynamics without hidden degrees of freedom *(14 pages)* 044044
Goffredo Chirco, Hal M. Haggard, Aldo Riello, and Carlo Rovelli

Renormalized stress tensor for massive fields in Kerr-Newman spacetime *(32 pages)* 044045
Andrei Belokogne and Antoine Folacci

Rotating black holes in three-dimensional Hořava gravity *(17 pages)* 044046
Thomas P. Sotiriou, Ian Vega, and Daniele Vernieri

Spectrum and stability of compactifications on product manifolds *(27 pages)* 044047
Adam R. Brown and Alex Dahlen

Measuring speed of gravitational waves by observations of photons and neutrinos from compact binary mergers and supernovae *(8 pages)* 044048
Atsushi Nishizawa and Takashi Nakamura

Dark energy fingerprints in the nonminimal Wu-Yang wormhole structure *(13 pages)* 044049
Alexander B. Balakin and Alexei E. Zayats

Gyratonic pp waves and their impulsive limit *(15 pages)* 044050
J. Podolský, R. Steinbauer, and R. Švarc

Thermostatistics of the polymeric ideal gas *(11 pages)* 044051
M. A. Gorji, K. Nozari, and B. Vakili

Constraining extended gravity models by S2 star orbits around the Galactic Centre *(8 pages)* 044052
S. Capozziello, D. Borka, P. Jovanović, and V. Borka Jovanović

Instability of nonminimally coupled scalar fields in the spacetime of slowly rotating compact objects *(12 pages)* 044053
Raissa F. P. Mendes, George E. A. Matsas, and Daniel A. T. Vanzella

Large scale structure formation in Eddington-inspired Born-Infeld gravity *(9 pages)* 044054
Xiao-Long Du, Ke Yang, Xin-He Meng, and Yu-Xiao Liu

Hyperscaling violating solution in coupled dilaton-squared curvature gravity *(15 pages)* 044055
Mahdis Ghodrati

Particlelike solutions in modified gravity: The Higgs monopole *(19 pages)* 044056
Sandrine Schlögel, Massimiliano Rinaldi, François Staelens, and André Füzfa

Triple points and phase diagrams in the extended phase space of charged Gauss-Bonnet black holes in AdS space *(14 pages)* 044057
Shao-Wen Wei and Yu-Xiao Liu

Zero modes and divergence of entanglement entropy *(7 pages)* 044058
Krishnanand Mallayya, Rakesh Tibrewala, S. Shankaranarayanan, and T. Padmanabhan

Generalized gravitomagnetic clock effect *(9 pages)* 044059
Eva Hackmann and Claus Lämmerzahl

Examination of a simple example of gravitational wave memory *(9 pages)* 044060
Alexander Tolish, Lydia Bieri, David Garfinkle, and Robert M. Wald

Rapidly rotating black holes in dynamical Chern-Simons gravity: Decoupling limit solutions and breakdown *(8 pages)* 044061
Leo C. Stein

Excision scheme for black holes in constrained evolution formulations: Spherically symmetric case *(14 pages)* 044062
Isabel Cordero-Carrión, Nicolas Vasset, Jérôme Novak, and José Luis Jaramillo

Critical behavior of charged Gauss-Bonnet-AdS black holes in the grand canonical ensemble *(9 pages)* 044063
De-Cheng Zou, Yunqi Liu, and Bin Wang

Thermodynamic curvature and ensemble nonequivalence *(8 pages)* 044064
Alessandro Bravetti and Francisco Nettel

(Continued)



Selected for a Viewpoint in *Physics*. Please visit http://physics.aps.org/.
By suggesting a few manuscripts each week, we hope to promote reading across fields. Please see our Announcement Phys. Rev. D **90**, 020001 (2014).

PHYSICAL REVIEW D THIRD SERIES, VOLUME 90, NUMBER 4 D15 AUGUST 2014

Gribov ambiguity and degenerate systems *(13 pages)* 044065
Fabrizio Canfora, Fiorenza de Micheli, Patricio Salgado-Rebolledo, and Jorge Zanelli

Slowly rotating black holes in Einstein-Dilaton-Gauss-Bonnet gravity: Quadratic order in spin solutions *(15 pages)* 044066
Dimitry Ayzenberg and Nicolás Yunes

Thermodynamic interpretation of the generalized gravity models with geometry-matter coupling *(13 pages)* 044067
Tiberiu Harko

Cloud of strings in third order Lovelock gravity *(13 pages)* 044068
Sushant G. Ghosh, Uma Papnoi, and Sunil D. Maharaj

Light rings as observational evidence for event horizons: Long-lived modes, ergoregions and nonlinear instabilities of ultracompact objects *(10 pages)* 044069
Vitor Cardoso, Luís C. B. Crispino, Caio F. B. Macedo, Hirotada Okawa, and Paolo Pani

Linking shape dynamics and loop quantum gravity *(6 pages)* 044070
Lee Smolin

Self-gravitating interferometry and intrinsic decoherence *(17 pages)* 044071
Cisco Gooding and William G. Unruh

Local momentum space and the vector field *(28 pages)* 044072
David J. Toms

Cosmology in generalized Horndeski theories with second-order equations of motion *(15 pages)* 044073
Ryotaro Kase and Shinji Tsujikawa

Rapidly evaluating the compact-binary likelihood function via interpolation *(5 pages)* 044074
R. J. E. Smith, C. Hanna, I. Mandel, and A. Vecchio

Affleck-Dine baryogenesis with R-parity violation *(20 pages)* 045001
Tetsutaro Higaki, Kazunori Nakayama, Ken'ichi Saikawa, Tomo Takahashi, and Masahide Yamaguchi

Effects of mass varying neutrinos on cosmological parameters as determined from the cosmic microwave background *(6 pages)* 045002
Akshay Ghalsasi and Ann E. Nelson

Thermodynamics of the BPS Skyrme model *(14 pages)* 045003
C. Adam, C. Naya, J. Sanchez-Guillen, J. M. Speight, and A. Wereszczynski

Calabi's diastasis as interface entropy *(10 pages)* 045004
Constantin P. Bachas, Ilka Brunner, Michael R. Douglas, and Leonardo Rastelli

Dynamics of electroweak gauge fields during and after Higgs inflation *(9 pages)* 045005
Ippei Obata, Takashi Miura, and Jiro Soda

Relevant perturbation of entanglement entropy and stationarity *(5 pages)* 045006
Tatsuma Nishioka

Multisolitons with vector mesons on the two-sphere *(11 pages)* 045007
F. L. Carrasco and Oscar A. Reula

SO(10) grand unified theories with dynamical Yukawa couplings *(19 pages)* 045008
Charanjit S. Aulakh and Charanjit K. Khosa

General limit on the relation between abundances of D and ^{7}Li in big bang nucleosynthesis with nucleon injections *(15 pages)* 045009
Motohiko Kusakabe, Myung-Ki Cheoun, and K. S. Kim

Reviving quark nuggets as a candidate for dark matter *(11 pages)* 045010
Abhishek Atreya, Anjishnu Sarkar, and Ajit M. Srivastava

Generalized scheme transformations for the elimination of higher-loop terms in the beta function of a gauge theory *(14 pages)* 045011
Robert Shrock

Finite temperature Casimir interaction between spheres in $(D+1)$-dimensional spacetime: Exact computations and asymptotic expansions *(18 pages)* 045012
L. P. Teo

Warped Ricci-flat reductions *(12 pages)* 045013
E. Ó Colgáin, M. M. Sheikh-Jabbari, J. F. Vázquez-Poritz, H. Yavartanoo, and Z. Zhang

$\mathcal{N}=(0,2)$ deformation of (2, 2) sigma models: Geometric structure, holomorphic anomaly, and exact β functions *(17 pages)* 045014
Jin Chen, Xiaoyi Cui, Mikhail Shifman, and Arkady Vainshtein

(Continued)

Selected for a Viewpoint in *Physics*. Please visit http://physics.aps.org/.
By suggesting a few manuscripts each week, we hope to promote reading across fields. Please see our Announcement Phys. Rev. D **90**, 020001 (2014).

PHYSICAL REVIEW D **THIRD SERIES, VOLUME 90, NUMBER 4** **D15 AUGUST 2014**

Ambiguities of the *CPT*-even aether-like Lorentz-breaking term at finite temperature *(11 pages)* 045015
T. Mariz, J. R. Nascimento, A. Yu. Petrov, and W. Serafim

Flux compactifications on $(S_2)^N$ *(23 pages)* 045016
Adam R. Brown, Alex Dahlen, and Ali Masoumi

Constrained minimal Dirac gaugino supersymmetric standard model *(31 pages)* 045017
K. Benakli, M. Goodsell, W. Porod, and F. Staub

Quantization, holography, and the universal coefficient theorem *(18 pages)* 045018
Andrei T. Patrascu

Quantum gauge theories on noncommutative three-dimensional space *(20 pages)* 045019
Antoine Géré, Patrizia Vitale, and Jean-Christophe Wallet

Calculation of size for bound-state constituents *(26 pages)* 045020
Stanisław D. Głazek

Competition and duality correspondence between inhomogeneous fermion-antifermion and fermion-fermion condensations in the NJL_2 model *(20 pages)* 045021
D. Ebert, T. G. Khunjua, K. G. Klimenko, and V. Ch. Zhukovsky

Nonlocal halo bias with and without massive neutrinos *(15 pages)* 045022
Matteo Biagetti, Vincent Desjacques, Alex Kehagias, and Antonio Riotto

Phase-space noncommutative formulation of Ozawa's uncertainty principle *(10 pages)* 045023
Catarina Bastos, Alex E. Bernardini, Orfeu Bertolami, Nuno Costa Dias, and João Nuno Prata

Worldline holographic Schwinger effect *(11 pages)* 045024
Dennis D. Dietrich

Photon polarization in light-by-light scattering: Finite size effects *(11 pages)* 045025
Victor Dinu, Tom Heinzl, Anton Ilderton, Mattias Marklund, and Greger Torgrimsson

Quasirelativistic fermions and dynamical flavor oscillations *(11 pages)* 045026
Jean Alexandre, Julio Leite, and Nick E. Mavromatos

Vacuum polarization and Casimir energy of a Dirac field induced by a scalar potential in one spatial dimension *(12 pages)* 045027
S. S. Gousheh, S. S. Mousavi, and L. Shahkarami

Large-N analysis of the critical behavior of the topological Ginzburg-Landau theory of self-dual Josephson junction arrays *(17 pages)* 045028
S. Sakhi

Supersymmetric electric-magnetic duality of hypergravity *(12 pages)* 045029
Claudio Bunster, Marc Henneaux, Sergio Hörtner, and Amaury Leonard

Dynamical framework for KeV Dirac neutrino warm dark matter *(8 pages)* 045030
Dean J. Robinson and Yuhsin Tsai

$U(1)$ gauge field localization on a Bloch brane with Chumbes-Holf da Silva-Hott mechanism *(9 pages)* 045031
Zhen-Hua Zhao, Yu-Xiao Liu, and Yuan Zhong

Neutrino emission characteristics and detection opportunities based on three-dimensional supernova simulations *(18 pages)* 045032
Irene Tamborra, Georg Raffelt, Florian Hanke, Hans-Thomas Janka, and Bernhard Müller

Zeta function regularization of the photon polarization tensor for a magnetized vacuum *(8 pages)* 045033
Jingyi Chao, Lang Yu, and Mei Huang

Connecting real-time properties of the massless Schwinger model to the massive case *(10 pages)* 045034
F. Hebenstreit and J. Berges

Tests of *CPT* and Lorentz symmetry from muon anomalous magnetic dipole moment *(6 pages)* 045035
Y. V. Stadnik, B. M. Roberts, and V. V. Flambaum

One-loop renormalizable Wess-Zumino model on a bosonic-fermionic noncommutative superspace *(34 pages)* 045036
Yan-Gang Miao and Xu-Dong Wang

Gluon propagator with two-loop Schwinger-Dyson equations *(11 pages)* 045037
Joseph Meyers and Eric S. Swanson

Validating the 2PI resummation: The Bloch-Nordsieck example *(12 pages)* 045038
A. Jakovác and P. Mati

Complex saddle points in QCD at finite temperature and density *(6 pages)* 045039
Hiromichi Nishimura, Michael C. Ogilvie, and Kamal Pangeni

(Continued)



Selected for a Viewpoint in *Physics*. Please visit http://physics.aps.org/.
By suggesting a few manuscripts each week, we hope to promote reading across fields. Please see our Announcement Phys. Rev. D **90**, 020001 (2014).

PHYSICAL REVIEW D THIRD SERIES, VOLUME 90, NUMBER 4 D15 AUGUST 2014

Nonrelativistic approximation of the Dirac equation for slow fermions in static metric spacetimes *(8 pages)* 045040
A. N. Ivanov and M. Pitschmann

Spacetime effects on satellite-based quantum communications *(13 pages)* 045041
David Edward Bruschi, Timothy C. Ralph, Ivette Fuentes, Thomas Jennewein, and Mohsen Razavi

Covariant equations for the tetraquark and more *(12 pages)* 045042
A. N. Kvinikhidze and B. Blankleider

Holographic superconductors from the massive gravity *(9 pages)* 046001
Hua Bi Zeng and Jian-Pin Wu

Rotating BTZ black holes and one dimensional holographic superconductors *(16 pages)* 046002
Pankaj Chaturvedi and Gautam Sengupta

Oscillating strings and non-Abelian T-dual Klebanov-Witten background *(7 pages)* 046003
Pabitra M. Pradhan

Thermalization in backgrounds with hyperscaling violating factor *(14 pages)* 046004
Mohsen Alishahiha, Amin Faraji Astaneh, and M. Reza Mohammadi Mozaffar

DGP braneworld with a bubble of nothing *(9 pages)* 046005
Keisuke Izumi and Tetsuya Shiromizu

Renormalized entanglement entropy flow in mass-deformed ABJM theory *(5 pages)* 046006
Kyung Kiu Kim, O-Kab Kwon, Chanyong Park, and Hyeonjoon Shin

Disordered holographic systems: Marginal relevance of imperfection *(5 pages)* 046007
Allan Adams and Sho Yaida

Higher spin contributions to holographic fluid dynamics in AdS_5/CFT_4 *(21 pages)* 046008
Seungjin Lee and Dimitri Polyakov

Disrupting entanglement of black holes *(10 pages)* 046009
Stefan Leichenauer

Evolution of nonlocal observables in an expanding boost-invariant plasma *(7 pages)* 046010
Juan F. Pedraza

BRIEF REPORTS

Blue gravity waves from BICEP2? *(4 pages)* 047301
Martina Gerbino, Andrea Marchini, Luca Pagano, Laura Salvati, Eleonora Di Valentino, and Alessandro Melchiorri

Distortion of the cosmic microwave background by the Milky Way *(5 pages)* 047302
Benjamin Czaja and Benjamin C. Bromley

Large tensor-to-scalar ratio from composite inflation *(5 pages)* 047303
Phongpichit Channuie and Khamphee Karwan

Nondisk geometry of $r = 0$ in Kerr–de Sitter and Kerr–Newman–de Sitter spacetimes *(5 pages)* 047501
V. S. Manko and H. García-Compeán

Conformal symmetry, Rindler space, and the AdS/CFT correspondence *(5 pages)* 047502
Prasant Samantray and T. Padmanabhan

Note on the Cardoso-Pani-Rico parametrization to test the Kerr black hole hypothesis *(5 pages)* 047503
Cosimo Bambi

Canonical formulation of scalar curvature squared action in higher dimensions *(5 pages)* 047504
Subhra Debnath, Soumendranath Ruz, and Abhik Kumar Sanyal

Estimation of heavy baryon masses Ω_{ccc}^{++} and Ω_{bbb}^{-} by solving the Faddeev equation in a three-dimensional approach *(4 pages)* 047701
M. Radin, Sh. Babaghodrat, and M. Monemzadeh

Noncommutativity from exact renormalization group dualities *(5 pages)* 047702
Sunandan Gangopadhyay and Frederik G. Scholtz

Center symmetry and area laws *(5 pages)* 047703
Thomas D. Cohen

Higher curvature gravity at the LHC *(5 pages)* 047901
Sumanta Chakraborty and Soumitra SenGupta

(Continued)

Selected for a Viewpoint in *Physics*. Please visit http://physics.aps.org/.
By suggesting a few manuscripts each week, we hope to promote reading across fields. Please see our Announcement Phys. Rev. D **90**, 020001 (2014).

PHYSICAL REVIEW D THIRD SERIES, VOLUME 90, NUMBER 4 D15 AUGUST 2014

Regular bulk solutions and black strings from dynamical braneworlds with variable tension *(5 pages)* 047902
D. Bazeia, J. M. Hoff da Silva, and Roldão da Rocha

ERRATA

Publisher's Note: β-deformation on a slanted torus and deformed pp wave [Phys. Rev. D **90**, 027704 (2014)] *(1 pages)* 049901
Ariunzul Dagvadorj and Sunyoung Shin

Publisher's Note: Numerical evolution of plane gravitational waves in the Friedrich-Nagy gauge [Phys. Rev. D **89**, 104026 (2014)] *(1 pages)* 049902
Jörg Frauendiener, Chris Stevens, and Ben Whale

Publisher's Note: Observational constraints on the averaged universe [Phys. Rev. D **85**, 043506 (2012)] *(1 pages)* 049903
Chris Clarkson, Timothy Clifton, Alan Coley, and Rockhee Sung

Publisher's Note: Stability of Reissner-Nordström black hole in de Sitter background under charged scalar perturbation [Phys. Rev. D **90**, 044042 (2014)] *(1 pages)* 049904
Zhiying Zhu, Shao-Jun Zhang, C. E. Pellicer, Bin Wang, and Elcio Abdalla

Selected for a Viewpoint in *Physics*. Please visit http://physics.aps.org/.
By suggesting a few manuscripts each week, we hope to promote reading across fields. Please see our Announcement Phys. Rev. D **90**, 020001 (2014).