

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 102, NUMBER 4

CONTENTS

D15 AUGUST 2020

The Table of Contents is a total listing of Parts A and B.

Part A consists of articles 041301–044023, and Part B articles 044024–049902(E)

PART A

RAPID COMMUNICATIONS

Confronting GW190814 with hyperonization in dense matter and hypernuclear compact stars (5 pages)	041301(R)
Armen Sedrakian, Fridolin Weber, and Jia Jie Li	
When will we observe binary black holes precessing? (5 pages)	041302(R)
Stephen Fairhurst, Rhys Green, Mark Hannam, and Charlie Hoy	
Multifractality in the general cosmological solution of Einstein's equations (3 pages)	041501(R)
John D. Barrow	
Loop quantum Schwarzschild interior and black hole remnant (6 pages)	041502(R)
Cong Zhang, Yongge Ma, Shupeng Song, and Xiangdong Zhang	
Magnetic mass effect on the sphaleron energy (5 pages)	041701(R)
Koichi Funakubo and Eibun Senaha	

ARTICLES

Limits from the FUNK experiment on the mixing strength of hidden-photon dark matter in the visible and near-ultraviolet wavelength range (18 pages)	042001
Arnaud Andrianavalomahefa, Christoph M. Schäfer, Darko Veberič, Ralph Engel, Thomas Schwetz, Hermann-Josef Mathes, Kai Daumiller, Markus Roth, David Schmidt, Ralf Ulrich, Babette Döbrich, Joerg Jaeckel, Marek Kowalski, Axel Lindner, and Javier Redondo (The FUNK Experiment)	
Numerical modeling and experimental demonstration of pulsed charge control for the space inertial sensor used in LISA (15 pages)	042002
H. Inchauspé, T. Olatunde, S. Apple, S. Parry, B. Letson, N. Turetta, G. Mueller, P. J. Wass, and J. W. Conklin	
Control of a filter cavity with coherent control sidebands (13 pages)	042003
Naoki Aritomi, Matteo Leonardi, Eleonora Capocasa, Yuhang Zhao, and Raffaele Flaminio	
Astrophysics and cosmology with a decihertz gravitational-wave detector: TianGO (20 pages)	043001
Kevin A. Kuns, Hang Yu, Yanbei Chen, and Rana X. Adhikari	
The mass gap, the spin gap, and the origin of merging binary black holes (22 pages)	043002
Vishal Baibhav, Davide Gerosa, Emanuele Berti, Kaze W. K. Wong, Thomas Helfer, and Matthew Mould	
Probing dark photons with plasma haloscopes (14 pages)	043003
Graciela B. Gelmini, Alexander J. Millar, Volodymyr Takhistov, and Edoardo Vitagliano	
Magnetohydrodynamic waves excited by a coupling between gravitational waves and a strongly magnetized plasma in binaries of neutron stars (28 pages)	043004
Adam S. Gontijo and Oswaldo D. Miranda	



Copyright 2020 American Physical Society

(Continued)



2470-0010(20200815)102:4;1-M



This paper was highlighted in the APS publication *Physics* (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).

Impact of eccentricity on the gravitational-wave searches for binary black holes: High mass case (13 pages)	043005
Antoni Ramos-Buades, Shubhanshu Tiwari, Maria Haney, and Sascha Husa	
Hybrid equation of state approach in binary neutron-star merger simulations (16 pages)	043006
A. Figura, Jia-Jing Lu (陆家靖), G. F. Burgio, Zeng-Hua Li (李增花), and H.-J. Schulze	
Describing Migdal effects in diamond crystal with atom-centered localized Wannier functions (10 pages)	043007
Zheng-Liang Liang, Lin Zhang, Fawei Zheng, and Ping Zhang	
Improved constraints on anisotropic birefringent Lorentz invariance and <i>CPT</i> violation from broadband optical polarimetry of high redshift galaxies (29 pages)	043008
Andrew S. Friedman, Roman Gerasimov, David Leon, Walker Stevens, David Tytler, Brian G. Keating, and Fabian Kislak	
Escalating core formation with dark matter self-heating (11 pages)	043009
Ayuki Kamada and Hee Jung Kim	
Acceleration of high energy protons in AGN relativistic jets (10 pages)	043010
Ya. N. Istomin and A. A. Gunya	
Detection and parameter estimation of binary neutron star merger remnants (14 pages)	043011
Paul J. Easter, Sudarshan Ghonge, Paul D. Lasky, Andrew R. Casey, James A. Clark, Francisco Hernandez Vivanco, and Katerina Chatziioannou	
Strong constraints on thermal relic dark matter from Fermi-LAT observations of the Galactic Center (24 pages)	043012
Kevork N. Abazajian, Shunsaku Horiuchi, Manoj Kaplinghat, Ryan E. Keeley, and Oscar Macias	
Inference offers a metric to constrain dynamical models of neutrino flavor transformation (14 pages)	043013
Eve Armstrong, Amol V. Patwardhan, Ermal Rrapaj, Sina Fallah Ardizi, and George M. Fuller	
Cross-correlating 2MASS Redshift Survey galaxies with the ultrahigh energy cosmic ray flux from Pierre Auger Observatory (7 pages)	043014
Pavel Motloch	
 GW190412: Observation of a binary-black-hole coalescence with asymmetric masses (29 pages)	043015
R. Abbott <i>et al.</i> (LIGO Scientific Collaboration and Virgo Collaboration)	
Revisiting oscillon formation in the Kachru-Kallosh-Linde-Trivedi scenario (8 pages)	043016
Shinta Kasuya, Masahiro Kawasaki, Francis Otani, and Eisuke Sonomoto	
Quasiequilibrium self-gravitating systems (15 pages)	043017
Kamel Ourabah	
When the entropy has no maximum: A new perspective on the instability of the first-order theories of dissipation (19 pages)	043018
L. Gavassino, M. Antonelli, and B. Haskell	
Axion helioscopes as solar magnetometers (19 pages)	043019
Ciaran A. J. O'Hare, Andrea Caputo, Alexander J. Millar, and Edoardo Vitagliano	
Constraining the ellipticity of millisecond pulsars with observed spin-down rates (8 pages)	043020
Wen-Cong Chen	
Constraints on the diffuse flux of ultrahigh energy neutrinos from four years of Askaryan Radio Array data in two stations (18 pages)	043021
P. Allison <i>et al.</i> (ARA Collaboration)	
Detection and classification of supernova gravitational wave signals: A deep learning approach (13 pages)	043022
Man Leong Chan, Ik Siong Heng, and Chris Messenger	
Aligned-spin neutron-star-black-hole waveform model based on the effective-one-body approach and numerical-relativity simulations (19 pages)	043023
Andrew Matas, Tim Dietrich, Alessandra Buonanno, Tanja Hinderer, Michael Pürrer, Francois Foucart, Michael Boyle, Matthew D. Duez, Lawrence E. Kidder, Harald P. Pfeiffer, and Mark A. Scheel	
Self-interacting dark matter from late decays and the H_0 tension (12 pages)	043024
Andrzej Hryczuk and Krzysztof Jodłowski	
LHAASO telescope sensitivity to diffuse gamma-ray signals from the Galaxy (8 pages)	043025
Andrii Neronov and Dmitri Semikoz	
Surface tension of strange stars mediated by a color-flavor-locked equation of state (8 pages)	043026
Robert S. Bogadi, Megandhren Govender, and Sibusiso Moyo	

(Continued)



This paper was highlighted in the APS publication *Physics* (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).

Dark matter halo sparsity of modified gravity scenarios (9 pages)	043501
Pier Stefano Corasaniti, Carlo Giocoli, and Marco Baldi	
Maximum likelihood map making with the Laser Interferometer Space Antenna (13 pages)	043502
Carlo R. Contaldi, Mauro Pieroni, Arianna I. Renzini, Giulia Cusin, Nikos Karnesis, Marco Peloso, Angelo Ricciardone, and Gianmassimo Tasinato (LISA Cosmology Working Group)	
Quantifying the effect of cooled initial conditions on cosmic string network evolution (14 pages)	043503
J. R. C. C. Correia and C. J. A. P. Martins	
Local-gravity test of unified models of inflation and dark energy in $f(R)$ gravity (12 pages)	043504
Mai Yashiki, Nobuyuki Sakai, and Ryo Saito	
Constraints on primordial black holes: The importance of accretion (6 pages)	043505
V. De Luca, G. Franciolini, P. Pani, and A. Riotto	
Local self-tuning mechanism for the cosmological constant (10 pages)	043506
Daniel Sobral Blanco and Lucas Lombriser	
Early dark energy does not restore cosmological concordance (40 pages)	043507
J. Colin Hill, Evan McDonough, Michael W. Toomey, and Stephon Alexander	
Merger rate distribution of primordial black hole binaries with electric charges (12 pages)	043508
Lang Liu, Zong-Kuan Guo, Rong-Gen Cai, and Sang Pyo Kim	
Cosmic filaments from cosmic strings (12 pages)	043509
M. A. Fernandez, Simeon Bird, and Yanou Cui	
Study of cubic Galileon gravity using N -body simulations (17 pages)	043510
Jiajun Zhang, Bikash R. Dinda, Md. Wali Hossain, Anjan A. Sen, and Wentao Luo	
Inflaton as the Affleck-Dine baryogenesis field in hilltop supernatural inflation (9 pages)	043511
Chia-Min Lin and Kazunori Kohri	
Spherical collapse in generalized dark matter models (13 pages)	043512
F. Pace, Z. Sakr, and I. Tutusaus	
Cross-correlation of the astrophysical gravitational-wave background with galaxy clustering (11 pages)	043513
Guadalupe Cañas-Herrera, Omar Contigiani, and Valeri Vardanyan	
Creation of universes from the third-quantized vacuum (12 pages)	043514
Leonardo Campanelli	
Generation of inflationary perturbations in the continuous spontaneous localization model: The second order power spectrum (22 pages)	043515
Gabriel León and María Pía Piccirilli	
What does the marked power spectrum measure? Insights from perturbation theory (23 pages)	043516
Oliver H. E. Philcox, Elena Massara, and David N. Spergel	
Testing interacting dark matter and dark energy model with cosmological data (10 pages)	043517
Gong Cheng, Yin-Zhe Ma, Fengquan Wu, Jiajun Zhang, and Xuelei Chen	
Gravitational particle production in loop quantum cosmology (13 pages)	043518
L. L. Graef, Rudnei O. Ramos, and G. S. Vicente	
Antisymmetric cross-correlation of line-intensity maps as a probe of reionization (10 pages)	043519
Gabriela Sato-Polito, José Luis Bernal, Ely D. Kovetz, and Marc Kamionkowski	
Remote dipole field reconstruction with dusty galaxies (13 pages)	043520
Fiona McCarthy and Matthew C. Johnson	
Fitting string inflation to real cosmological data: The fiber inflation case (13 pages)	043521
Michele Cicoli and Eleonora Di Valentino	
Primordial black holes and gravitational waves in nonstandard cosmologies (20 pages)	043522
Sukannya Bhattacharya, Subhendra Mohanty, and Priyank Parashari	
Observational consequences of Bianchi I spacetimes in loop quantum cosmology (27 pages)	043523
Ivan Agullo, Javier Olmedo, and V. Sreenath	
Violation of slow-roll in nonminimal inflation (13 pages)	043524
Tomo Takahashi, Tommi Tenkanen, and Shuichiro Yokoyama	

(Continued)



Inflation with a quartic potential in the framework of Einstein-Gauss-Bonnet gravity (13 pages)	043525
Ekaterina O. Pozdeeva, Mayukh Raj Gangopadhyay, Mohammad Sami, Alexey V. Toporensky, and Sergey Yu. Vernov	
Threshold of primordial black hole formation in nonspherical collapse (6 pages)	043526
Chul-Moon Yoo, Tomohiro Harada, and Hirotada Okawa	
Primordial black holes and oscillating gravitational waves in slow-roll and slow-climb inflation with an intermediate noninflationary phase (7 pages)	043527
Chengjie Fu, Puxun Wu, and Hongwei Yu	
Time scales for nonlinear processes in preheating after multifield inflation with nonminimal couplings (24 pages)	043528
Jorinde van de Vis, Rachel Nguyen, Evangelos I. Sfakianakis, John T. Giblin, and David I. Kaiser	
Entanglement entropy of cosmological perturbations (20 pages)	043529
Suddhasattwa Brahma, Omar Alaryani, and Robert Brandenberger	
Lagrangian-space Gaussian ansatz for the matter redshift-space power spectrum and correlation function (15 pages)	043530
Patrick Valageas and Takahiro Nishimichi	
Second-order effective energy-momentum tensor of gravitational scalar perturbations with perfect fluid (13 pages)	043531
Inyong Cho, Jinn-Ouk Gong, and Seung Hun Oh	
Black hole echoes (8 pages)	044001
Guido D'Amico and Nemanja Kaloper	
Turnaround radius in scalar-tensor gravity with quasilocal mass (8 pages)	044002
Valerio Faraoni, Andrea Giusti, and Jeremy Côté	
Evolving wormhole in the braneworld scenario (12 pages)	044003
F. Parsaei and N. Riazi	
Hawking flux from a black hole with nonlinear supertranslation hair (11 pages)	044004
Feng-Li Lin and Shingo Takeuchi	
Accelerating black holes: Quasinormal modes and late-time tails (15 pages)	044005
Kyriakos Destounis, Rodrigo D. B. Fontana, and Filipe C. Mena	
Horizon induces instability locally and creates quantum thermality (6 pages)	044006
Surojit Dalui, Bibhas Ranjan Majhi, and Pankaj Mishra	
Are ultraspinning Kerr-Sen-AdS ₄ black holes always superentropic? (10 pages)	044007
Di Wu, Puxun Wu, Hongwei Yu, and Shuang-Qing Wu	
Electric multipole fields of higher-dimensional massive bodies (6 pages)	044008
Matthew S. Fox	
Probing modified gravity theories and cosmology using gravitational-waves and associated electromagnetic counterparts (19 pages)	044009
S. Mastroianni, D. A. Steer, and M. Barsuglia	
Core collapse in massive scalar-tensor gravity (26 pages)	044010
Roxana Rosca-Mead, Ulrich Sperhake, Christopher J. Moore, Michalis Agathos, Davide Gerosa, and Christian D. Ott	
Do black hole shadows merge? (11 pages)	044011
Kazumasa Okabayashi, Nobuyuki Asaka, and Ken-ichi Nakao	
Does the shape of the shadow of a black hole depend on motional status of an observer? (10 pages)	044012
Zhe Chang and Qing-Hua Zhu	
Can the dynamics of test particles around charged stringy black holes mimic the spin of Kerr black holes? (17 pages)	044013
Bakhtiyor Narzilloev, Javlon Rayimbaev, Sanjar Shaymatov, Ahmadjon Abdujabbarov, Bobomurat Ahmedov, and Cosimo Bambi	
Excited hairy black holes: Dynamical construction and level transitions (17 pages)	044014
Pablo Bosch, Stephen R. Green, Luis Lehner, and Hugo Roussille	
Quasinormal modes of charged fields in Reissner-Nordström backgrounds by Borel-Padé summation of Bender-Wu series (21 pages)	044015
Dan Stefan Eniceicu and Matthew Reece	
Impulsive waves in ghost-free infinite derivative gravity in anti-de Sitter spacetime (10 pages)	044016
Suat Dengiz, Ercan Kilicarslan, Ivan Kolář, and Anupam Mazumdar	

(Continued)



This paper was highlighted in the APS publication *Physics* (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).

CONTENTS - *Continued*

PHYSICAL REVIEW D

THIRD SERIES, VOLUME 102, NUMBER 4

D15 AUGUST 2020

Measuring the shape of a black hole photon ring (6 pages)	044017
Samuel E. Gralla	
Global asymptotic dynamics of cosmological Einsteinian cubic gravity (9 pages)	044018
Israel Quiros, Ricardo García-Salcedo, Tame Gonzalez, Jorge Luis Morales Martínez, and Ulises Nucamendi	
Chaotic particle motion around a homogeneous circular ring (11 pages)	044019
Takahisa Igata	
Turning a Newtonian analogy for FLRW cosmology into a relativistic problem (12 pages)	044020
Valerio Faraoni and Farah Atieh	
Gravitational lensing in black-bounce spacetimes (8 pages)	044021
J. R. Nascimento, A. Yu. Petrov, P. J. Porfírio, and A. R. Soares	
Cosmological initial data for numerical relativity (9 pages)	044022
David Garfinkle and Lawrence Mead	
Quasinormal modes and Hawking radiation of black holes in cubic gravity (11 pages)	044023
R. A. Konoplya, A. F. Zinhailo, and Z. Stuchlik	

PART B

Thermal quantum gravity condensates in group field theory cosmology (16 pages)	044024
Mehdi Assanioussi and Isha Kotecha	
Series reduction method for scattering of planar waves by Kerr black holes (10 pages)	044025
Tom Stratton, Luiz C. S. Leite, Sam R. Dolan, and Luís C. B. Crispino	
Stationary cylindrical anisotropic fluid and new purely magnetic GR solutions (20 pages)	044026
Marie-Noëlle Célérier and Nilton O. Santos	
Extended gravitational clock compass: New exact solutions and simulations (20 pages)	044027
Gerald Neumann, Dirk Puetzfeld, and Guillermo F. Rubilar	
Orbital mechanics and quasiperiodic oscillation resonances of black holes in Einstein-Æther theory (21 pages)	044028
Mustapha Azreg-Aïnou, Zihang Chen, Bojun Deng, Mubasher Jamil, Tao Zhu, Qiang Wu, and Yen-Kheng Lim	
Equivalence of inflationary models between the metric and Palatini formulation of scalar-tensor theories (13 pages)	044029
Laur Järv, Alexandros Karam, Aleksander Kozak, Angelos Lykkas, Antonio Racioppi, and Margus Saal	
Mass inflation and strong cosmic censorship in a nonextreme BTZ black hole (11 pages)	044030
Srijit Bhattacharjee, Shailesh Kumar, and Subhdeep Sarkar	
Marginally outer trapped surfaces in the Schwarzschild spacetime: Multiple self-intersections and extreme mass ratio mergers (20 pages)	044031
Ivan Booth, Robie A. Hennigar, and Saikat Mondal	
Semi-analytic expressions for quasinormal modes of slowly rotating Kerr black holes (11 pages)	044032
Yasuyuki Hatsuda and Masashi Kimura	
Tidal effects in the gravitational-wave phase evolution of compact binary systems to next-to-next-to-leading post-Newtonian order (24 pages)	044033
Quentin Henry, Guillaume Faye, and Luc Blanchet	
Equivalence of the Chern-Simons state and the Hartle-Hawking and Vilenkin wave functions (7 pages)	044034
João Magueijo	
Numerical relativity injection analysis of signals from generically spinning intermediate mass black hole binaries in Advanced LIGO data (14 pages)	044035
Koustav Chandra, V. Gayathri, Juan Calderón Bustillo, and Archana Pai	
Horndeski gravity and standard sirens (19 pages)	044036
Charles Dalang, Pierre Fleury, and Lucas Lombriser	
Global visibility of a strong curvature singularity in nonmarginally bound dust collapse (13 pages)	044037
Karim Mosani, Dipanjan Dey, and Pankaj S. Joshi	
Einstein quartic gravity: Shadows, signals, and stability (15 pages)	044038
Hossein Khodabakhshi, Andrea Giaimo, and Robert B. Mann	

(Continued)



This paper was highlighted in the APS publication *Physics* (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).

Gravity waves in parity-violating Copernican universes (13 pages)	044039
Stephon Alexander, Leah Jenks, Pavel Jiroušek, João Magueijo, and Tom Złóśnik	
Instabilities in neutron-star postmerger remnants (17 pages)	044040
Xiaoyi Xie, Ian Hawke, Andrea Passamonti, and Nils Andersson	
Memory effect and BMS symmetries for extreme black holes (14 pages)	044041
Srijit Bhattacharjee and Shailesh Kumar	
Perihelion precession and shadows near black holes and naked singularities (9 pages)	044042
Dipanjan Dey, Rajibul Shaikh, and Pankaj S. Joshi	
Stability of topological neutron stars (9 pages)	044043
Daniela D. Doneva, Stoytcho S. Yazadjiev, and Kostas D. Kokkotas	
Kerr analogue of Kinnersley's field of an arbitrarily accelerating point mass (9 pages)	044044
Peter A. Hogan and Dirk Puetzfeld	
Axisymmetric deformations of neutron stars and gravitational-wave astronomy (12 pages)	044045
Guilherme Raposo and Paolo Pani	
Vainshtein screening for slowly rotating stars (21 pages)	044046
T. Anson and E. Babichev	
Ringling of rotating black holes in higher-derivative gravity (39 pages)	044047
Pablo A. Cano, Kwinten Fransen, and Thomas Hertog	
Stealth spontaneous spinorization of relativistic stars (13 pages)	044048
Masato Minamitsuji	
Spin connection and cosmological perturbations in $f(T)$ gravity (11 pages)	044049
Alexey V. Toporensky and Petr V. Tretyakov	
Revisiting collisional Penrose processes in terms of escape probabilities for spinning particles (7 pages)	044050
Ming Zhang and Jie Jiang	
Special case of the Bañados-Silk-West effect (6 pages)	044051
O. B. Zaslavskii	
Improved Cauchy-characteristic evolution system for high-precision numerical relativity waveforms (25 pages)	044052
Jordan Moxon, Mark A. Scheel, and Saul A. Teukolsky	
Spectroscopy of binary black hole ringdown using overtones and angular modes (21 pages)	044053
Xisco Jiménez Forteza, Swetha Bhagwat, Paolo Pani, and Valeria Ferrari	
Einstein-Maxwell-dilaton theory in Newman-Penrose formalism (14 pages)	044054
Wen-Di Tan	
Multipolar effective-one-body waveforms for precessing binary black holes: Construction and validation (24 pages)	044055
Sergei Ossokine, Alessandra Buonanno, Sylvain Marsat, Roberto Cotesta, Stanislav Babak, Tim Dietrich, Roland Haas, Ian Hinder, Harald P. Pfeiffer, Michael Pürrer, Charles J. Woodford, Michael Boyle, Lawrence E. Kidder, Mark A. Scheel, and Béla Szilágyi	
Gravitational-wave constraints on an effective-field-theory extension of general relativity (15 pages)	044056
Noah Sennett, Richard Brito, Alessandra Buonanno, Victor Gorbenko, and Leonardo Senatore	
Sonic point and photon surface (18 pages)	044057
Masataka Tsuchiya, Chul-Moon Yoo, Yasutaka Koga, and Tomohiro Harada	
General relativity as a special case of Poincaré gauge gravity (10 pages)	044058
Yuri N. Obukhov and Friedrich W. Hehl	
Effects of a scalar fifth force on the dynamics of a charged particle as a new experimental design to test chameleon theories (16 pages)	044059
Jean-Philippe Uzan, Martin Pernot-Borràs, and Joel Bergé	
Gravitational field of a pit and maximal mass defects (11 pages)	044060
José P. S. Lemos and O. B. Zaslavskii	
Tidal Love numbers of braneworld black holes and wormholes (24 pages)	044061
Hai Siong Tan	
Positivity bounds on reconstructed Horndeski models (11 pages)	044062
Joe Kennedy and Lucas Lombriser	

(Continued)



Polar gravitational perturbations and quasinormal modes of a loop quantum gravity black hole (10 pages)	044063
M. B. Cruz, F. A. Brito, and C. A. S. Silva	
Asymptotic horizon formation, spacetime stretching, and causality (13 pages)	045001
Carlos Barceló, Valentin Boyanov, Raúl Carballo-Rubio, and Luis J. Garay	
Unruh effect for detectors in superposition of accelerations (16 pages)	045002
Luis C. Barbado, Esteban Castro-Ruiz, Luca Apadula, and Časlav Brukner	
Fermion transfer in the ϕ^4 model with a half-BPS preserving impurity (12 pages)	045003
João G. F. Campos and Azadeh Mohammadi	
Renormalization group improvement of the effective potential in six dimensions (9 pages)	045004
Huan Souza, L. Ibiapina Bevilacqua, and A. C. Lehum	
Loop Fayet-Iliopoulos terms in T^2/Z_2 models: Instability and moduli stabilization (15 pages)	045005
Hiroyuki Abe, Tatsuo Kobayashi, Shohei Uemura, and Junji Yamamoto	
Casimir energy and topological mass for a massive scalar field with Lorentz violation (21 pages)	045006
M. B. Cruz, E. R. Bezerra de Mello, and H. F. Santana Mota	
Compact, charged boson stars and shells in the $\mathbb{CP}^N$ gravitating nonlinear sigma model (14 pages)	045007
Nobuyuki Sawado and Shota Yanai	
Restricted Weyl symmetry (6 pages)	045008
Ichiro Oda	
$T\bar{T}$, the entanglement wedge cross section, and the breakdown of the split property (23 pages)	045009
Meseret Asrat and Jonah Kudler-Flam	
Schwinger effect in compact space: A real time calculation (13 pages)	045010
Yue Qiu and Lorenzo Sorbo	
Charging the $O(N)$ model (6 pages)	045011
Oleg Antipin, Jahmall Bersini, Francesco Sannino, Zhi-Wei Wang, and Chen Zhang	
UV consistency conditions for Cachazo-He-Yuan integrands (7 pages)	045012
Laurentiu Rodina	
Structural identities in the first-order formulation of quantum gravity (14 pages)	045013
F. T. Brandt, J. Frenkel, S. Martins-Filho, and D. G. C. McKeon	
Frame covariance in quantum gravity (28 pages)	045014
Kieran Finn, Sotirios Karamitsos, and Apostolos Pilaftsis	
Semiclassical transport equations of Dirac particles in rotating frames (12 pages)	045015
Ömer F. Dayı and Eda Kiliçarslan	
Renormalization-group behavior of ϕ^3 theories in $d = 6$ dimensions (9 pages)	045016
John A. Gracey, Thomas A. Rytov, and Robert Shrock	
Some measures for fermionic entanglement in the cosmological de Sitter spacetime (14 pages)	045017
Sourav Bhattacharya, Himanshu Gaur, and Nitin Joshi	
Vortices in Maxwell-Chern-Simons-Higgs models with nonminimal coupling (17 pages)	045018
I. Andrade, D. Bazeia, M. A. Marques, and R. Menezes	
Decorated $\mathbb{Z}_2$ symmetry defects and their time-reversal anomalies (15 pages)	045019
Clay Córdova, Kantaro Ohmori, Shu-Heng Shao, and Fei Yan	
Mirror at the edge of the universe: Reflections on an accelerated boundary correspondence with de Sitter cosmology (9 pages)	045020
Michael R. R. Good, Abay Zhakenuly, and Eric V. Linder	
Running gravitational couplings, decoupling, and curved spacetime renormalization (6 pages)	045021
Antonio Ferreira and Jose Navarro-Salas	
Linked vortices as baryons in the miscible BEC-Skyrme model (19 pages)	045022
Sven Bjarke Gudnason and Muneto Nitta	
One-loop Yang-Mills integrands from scattering equations (14 pages)	045023
Johannes Agerskov, N. E. J. Bjerrum-Bohr, Humberto Gomez, and Cristhiam Lopez-Arcos	
Spin networks and the big bang singularity avoidance in the AdS/CFT correspondence (6 pages)	046001
Carlos Silva	

(Continued)



CONTENTS - *Continued*

PHYSICAL REVIEW D

THIRD SERIES, VOLUME 102, NUMBER 4

D15 AUGUST 2020

Universal pieces of holographic entanglement entropy and holographic subregion complexity (12 pages)	046002
Sunandan Gangopadhyay, Dharmesh Jain, and Ashis Saha	
Extension to imaginary chemical potential in a holographic model (10 pages)	046003
Kazuo Ghoroku, Kouji Kashiwa, Yoshimasa Nakano, Motoi Tachibana, and Fumihiko Toyoda	
Quantum Oppenheimer-Snyder model (23 pages)	046004
Włodzimierz Piechocki and Tim Schmitz	
Double copy of electric-magnetic duality (15 pages)	046005
Yu-tin Huang, Uri Kol, and Donal O'Connell	
No-go result for covariance in models of loop quantum gravity (7 pages)	046006
Martin Bojowald	
Nonlinear Regge trajectories with AdS/QCD (14 pages)	046007
Miguel Angel Martin Contreras and Alfredo Vega	
Duality and axionic weak gravity (11 pages)	046008
Stefano Andriolo, Tzu-Chen Huang, Toshifumi Noumi, Hiroshi Ooguri, and Gary Shiu	
Conformal scale factor inversion for domain walls and holography (24 pages)	046009
A. A. Lima, U. Camara da Silva, and G. M. Sotkov	
Thermodynamics of 4D dilatonic black holes and the weak gravity conjecture (16 pages)	046010
Gregory J. Loges, Toshifumi Noumi, and Gary Shiu	
Fermion condensation induced by the Weyl anomaly (6 pages)	046011
Chong-Sun Chu and Rong-Xin Miao	
Fractional and integer vortex dynamics in strongly coupled two-component Bose-Einstein condensates from AdS/CFT correspondence (8 pages)	046012
Wei-Can Yang, Chuan-Yin Xia, Muneto Nitta, and Hua-Bi Zeng	
Multipartite purification, multiboundary wormholes, and islands in AdS ₃ /CFT ₂ (15 pages)	046013
Aranya Bhattacharya	
Eikonal phase matrix, deflection angle, and time delay in effective field theories of gravity (23 pages)	046014
Manuel Accettulli Huber, Andreas Brandhuber, Stefano De Angelis, and Gabriele Travaglini	
Supercritical string cosmology drains the swampland (14 pages)	046015
John Ellis, Nick E. Mavromatos, and D. V. Nanopoulos	
Generalizing weak gravity conjecture (4 pages)	046016
Rance Solomon and Dejan Stojkovic	
Dirac branes for Dirichlet branes: Supergravity actions (19 pages)	046017
Andrew R. Frey	
Low μ and imaginary μ signals of a critical point in the phase diagram of an exactly soluble chiral symmetry breaking theory (13 pages)	046018
Nick Evans and M. J. Russell	
Hamiltonian deformations in quantum mechanics, $T\bar{T}$, and the SYK model (17 pages)	046019
David J. Gross, Jorrit Kruthoff, Andrew Rolph, and Edgar Shaghoulian	
Geometry of entanglement (12 pages)	046020
Andrea Prudenziati	

COMMENTS

Comment on “Multiscatter stellar capture of dark matter” (6 pages)	048301
Cosmin Ilie, Jacob Pilawa, and Saiyang Zhang	

ERRATA

Erratum: Directed searches for gravitational waves from ultralight bosons [Phys. Rev. D 99 , 084042 (2019)] (4 pages)	049901
Maximiliano Isi, Ling Sun, Richard Brito, and Andrew Melatos	
Erratum: Positivity in the Sky: Constraining dark energy and modified gravity from the UV [Phys. Rev. D 101 , 021502(R) (2020)] (2 pages)	049902
S. Melville and J. Noller	



This paper was highlighted in the APS publication *Physics* (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).