

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 100, NUMBER 12

CONTENTS

D15 DECEMBER 2019

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

Part A consists of articles 121501–124019, and Part B articles 124020–129903(E)

PART A

RAPID COMMUNICATIONS

- Anisotropies and non-Gaussianity of the cosmological gravitational wave background (7 pages) 121501(R)
N. Bartolo, D. Bertacca, S. Matarrese, M. Peloso, A. Ricciardone, A. Riotto, and G. Tasinato
- Analytical determination of the periastron advance in spinning binaries from self-force computations (6 pages) 121502(R)
Donato Bini and Andrea Geralico
- Uniqueness of minimal loop quantum cosmology dynamics (7 pages) 121901(R)
Jonathan Engle and Ilya Vilenky
- Relation between standard and exotic duals of differential forms (6 pages) 121902(R)
Athanasios Chatzistavrakidis and Georgios Karagiannis

ARTICLES

- Analytical analysis on the orbits of Taiji spacecrafts (21 pages) 122001
Bofeng Wu, Chao-Guang Huang, and Cong-Feng Qiao
- Search for gravitational waves from Scorpius X-1 in the second Advanced LIGO observing run with an improved hidden Markov model (21 pages) 122002
B. P. Abbott *et al.* (LIGO Scientific Collaboration and Virgo Collaboration)
- Suppressing parametric instabilities in LIGO using low-noise acoustic mode dampers (11 pages) 122003
S. Biscans, S. Gras, C. D. Blair, J. Driggers, M. Evans, P. Fritschel, T. Hardwick, and G. Mansell
- Investigation of effects of assisted ion bombardment on mechanical loss of sputtered tantalum thin films for gravitational wave interferometers (8 pages) 122004
Le Yang, Emmett Randel, Gabriele Vajente, Alena Ananyeva, Eric Gustafson, Ashot Markosyan, Riccardo Bassiri, Martin M. Fejer, and Carmen S. Menoni
- Rotating neutron stars with nonbarotropic thermal profile (18 pages) 123001
Giovanni Cameli, Tim Dietrich, Miguel Marques, and Stephan Rosswog
- Hydrodynamical instabilities in the superfluid interior of neutron stars with background flows between the components (19 pages) 123002
V. Khomenko, M. Antonelli, and B. Haskell
- Nonstrange quark stars from an NJL model with proper-time regularization (7 pages) 123003
Qingwu Wang, Chao Shi, and Hong-Shi Zong
- Searching for the possible signal of the photon-axionlike particle oscillation in the combined GeV and TeV spectra of supernova remnants (11 pages) 123004
Zi-Qing Xia, Yun-Feng Liang, Lei Feng, Qiang Yuan, Yi-Zhong Fan, and Jian Wu



Copyright 2019 American Physical Society

(Continued)



2470-0010(20191215)100:12*1;1-2



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**, 00001 (2014).

21-cm observations and warm dark matter models (8 pages)	123005
A. Boyarsky, D. Iakubovskiy, O. Ruchayskiy, A. Rudakovskiy, and W. Valkenburg	
Testing self-interacting dark matter with galaxy warps (12 pages)	123006
K. Pardo, H. Desmond, and P. G. Ferreira	
Gamma lines from the hidden sector (11 pages)	123007
Pavel Fileviez Pérez and Clara Murgui	
Macroscopic dark matter constraints from bolide camera networks (7 pages)	123008
Jagjit Singh Sidhu and Glenn Starkman	
Multimessenger asteroseismology of core-collapse supernovae (23 pages)	123009
John Ryan Westernacher-Schneider, Evan O'Connor, Erin O'Sullivan, Irene Tamborra, Meng-Ru Wu, Sean M. Couch, and Felix Malmenbeck	
Universal behavior of a compact star based upon the gravitational binding energy (9 pages)	123010
Rongrong Jiang, Dehua Wen, and Houyuan Chen	
Reviving millicharged dark matter for 21-cm cosmology (24 pages)	123011
Hongwan Liu, Nadav Joseph Outmezguine, Diego Redigolo, and Tomer Volansky	
Co-interacting dark matter (8 pages)	123012
Jia Liu, Xiao-Ping Wang, and Wei Xue	
Primordial black holes as silver bullets for new physics at the weak scale (10 pages)	123013
Gianfranco Bertone, Adam M. Coogan, Daniele Gaggero, Bradley J. Kavanagh, and Christoph Weniger	
Gravitational waves from newborn accreting millisecond magnetars (9 pages)	123014
Shu-Qing Zhong, Zi-Gao Dai, and Xiang-Dong Li	
Detection of a γ -ray halo around Geminga with the <i>Fermi</i> -LAT data and implications for the positron flux (23 pages)	123015
Mattia Di Mauro, Silvia Manconi, and Fiorenza Donato	
Dark matter astrometry at underground detectors with multiscatter events (10 pages)	123016
Joseph Bramante, Jason Kumar, and Nirmal Raj	
Higher order gravitational-wave modes with likelihood reweighting (12 pages)	123017
Ethan Payne, Colm Talbot, and Eric Thrane	
Gravitational wave detection without boot straps: A Bayesian approach (11 pages)	123018
Gregory Ashton, Eric Thrane, and Rory J. E. Smith	
New code for equilibria and quasiequilibrium initial data of compact objects. IV. Rotating relativistic stars with mixed poloidal and toroidal magnetic fields (34 pages)	123019
Kōji Uryū, Shijun Yoshida, Eric Gourgoulhon, Charalampos Markakis, Kotaro Fujisawa, Antonios Tsokaros, Keisuke Taniguchi, and Yoshiharu Eriguchi	
Axions as a probe of solar metals (6 pages)	123020
Joerg Jaeckel and Lennert J. Thormaehlen	
Bounds on neutron-mirror neutron mixing from pulsar timing (7 pages)	123021
I. Goldman, R. N. Mohapatra, and S. Nussinov	
Reduction of the uncertainty in the atmospheric neutrino flux prediction below 1 GeV using accurately measured atmospheric muon flux (15 pages)	123022
M. Honda, M. Sajjad Athar, T. Kajita, K. Kasahara, and S. Midorikawa	
Vector gauge boson radiation from compact binary systems in a gauged $L_\mu - L_\tau$ scenario (8 pages)	123023
Tanmay Kumar Poddar, Subhendra Mohanty, and Soumya Jana	
Implications of the fermion vacuum term in the extended SU(3) quark meson model on compact star properties (12 pages)	123024
Andreas Zacchi and Jürgen Schaffner-Bielich	
Life of cosmological perturbations in modified dispersion relation models and the prospect of traveling primordial gravitational waves (9 pages)	123501
Giulia Gubitosi and Joao Magueijo	
Kinetic approach to the Schwinger effect during inflation (15 pages)	123502
E. V. Gorbar, A. I. Momot, O. O. Sobol, and S. I. Vilchinskii	
Implications of a frame dependent dark energy for the spacetime metric, cosmography, and effective Hubble constant (12 pages)	123503
Stephen L. Adler	

(Continued)



Bias to CMB lensing from lensed foregrounds (14 pages)	123504
Nishant Mishra and Emmanuel Schaan	
Dark matter as Planck relics without too exotic hypotheses (6 pages)	123505
Aurélien Barrau, Killian Martineau, Flora Moulin, and Jean-Frédéric Ngono	
Derivation of the core mass-halo mass relation of fermionic and bosonic dark matter halos from an effective thermodynamical model (41 pages)	123506
Pierre-Henri Chavanis	
Curvature perturbations in the effective field theory of inflation (17 pages)	123507
Macarena Lagos, Meng-Xiang Lin, and Wayne Hu	
Late-times asymptotic equation of state for a class of nonlocal theories of gravity (10 pages)	123508
Leonardo Giani and Oliver F. Piattella	
Optimal filtering for CMB lensing reconstruction (17 pages)	123509
Mark Mirmelstein, Julien Carron, and Antony Lewis	
Inflation in generalized unimodular gravity (15 pages)	123510
A. O. Barvinsky and N. Kolganov	
Higher N -point function data analysis techniques for heavy particle production and WMAP results (16 pages)	123511
Moritz Münchmeyer and Kendrick M. Smith	
Detectability of ultralight scalar field dark matter with gravitational-wave detectors (14 pages)	123512
Soichiro Morisaki and Teruaki Suyama	
New constraints on the linear growth rate using cosmic voids in the SDSS DR12 datasets (10 pages)	123513
I. Achitouv	
Astrophysical and local constraints on string theory: Runaway dilaton models (8 pages)	123514
C. J. A. P. Martins and L. Vacher	
Gravitational-wave background from kink-kink collisions on infinite cosmic strings (7 pages)	123515
Yuka Matsui and Sachiko Kuroyanagi	
Scale-independent R^2 inflation (8 pages)	123516
Pedro G. Ferreira, Christopher T. Hill, Johannes Noller, and Graham G. Ross	
Primordial power spectra for curved inflating universes (8 pages)	123517
Will Handley	
Trans-Planckian censorship conjecture and nonthermal post-inflationary history (9 pages)	123518
Mansi Dhuria and Gaurav Goswami	
Smallest halos in thermal wino dark matter (12 pages)	123519
Shin'ichiro Ando, Ayuki Kamada, Toyokazu Sekiguchi, and Tomo Takahashi	
Constraining nonthermal dark matter's impact on the matter power spectrum (15 pages)	123520
Carisa Miller, Adrienne L. Erickcek, and Riccardo Murgia	
Non-Gaussianity in a general kind noncanonical warm inflation (9 pages)	123521
Xiao-Min Zhang, Kai Li, Hong-Yang Ma, Qian Liu, and Jian-Yang Zhu	
User's guide to extracting cosmological information from line-intensity maps (20 pages)	123522
José Luis Bernal, Patrick C. Breysse, Héctor Gil-Marín, and Ely D. Kovetz	
CMB targets after the latest <i>Planck</i> data release (20 pages)	123523
Renata Kallosh and Andrei Linde	
☞ Threshold for primordial black holes: Dependence on the shape of the cosmological perturbations (18 pages)	123524
Ilia Musco	
Hot thermal universe endowed with massive dark vector fields and the Hubble tension (5 pages)	123525
Luis A. Anchordoqui and Santiago E. Perez Bergliaffa	
Energy-conservation constraints on cosmic string loop production and distribution functions (6 pages)	123526
Jose J. Blanco-Pillado, Ken D. Olum, and Jeremy M. Wachter	
Primordial power spectra of cosmological fluctuations with generalized uncertainty principle and maximum length quantum mechanics (12 pages)	123527
F. Skara and L. Perivolaropoulos	
☞ Separate universe void bias (14 pages)	123528
Drew Jamieson and Marilena Loverde	

(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**, 00001 (2014).

Unified early and late Universe cosmology through dissipative effects in steep quintessential inflation potential models (14 pages)	123529
Gustavo B. F. Lima and Rudnei O. Ramos	
Trans-Planckian censorship and other swampland bothers addressed in warm inflation (11 pages)	123530
Arjun Berera and Jaime R. Calderón	
Birth of de Sitter universe from a time crystal universe (11 pages)	123531
Daisuke Yoshida and Jiro Soda	
Energy density, temperature, and entropy dynamics in perturbative reheating (12 pages)	123532
Alessandro Di Marco, Giancarlo De Gasperis, Gianfranco Pradisi, and Paolo Cabella	
Analytical solutions of the classical and quantum cosmological models with an exponential potential (6 pages)	123533
A. P. Rebesh and B. I. Lev	
Bianchi spacetimes as supercurvature modes around isotropic cosmologies (27 pages)	123534
Thiago S. Pereira and Cyril Pitrou	
Beyond scalar, vector, and tensor harmonics in maximally symmetric three-dimensional spaces (34 pages)	123535
Cyril Pitrou and Thiago S. Pereira	
Nonclassical primordial gravitational waves from the initial entangled state (12 pages)	123536
Sugumi Kanno	
Measuring bias via the consistency relations of the large scale structure (8 pages)	123537
Marco Marinucci, Takahiro Nishimichi, and Massimo Pietroni	
Cosmological discordances. III. More on measure properties, large-scale-structure constraints, the Hubble constant and Planck data (17 pages)	123538
Cristhian Garcia-Quintero, Mustapha Ishak, Logan Fox, and Weikang Lin	
Probing the cosmic opacity from future gravitational wave standard sirens (9 pages)	123539
Lu Zhou, Xiangyun Fu, Zhaohui Peng, and Jun Chen	
Emulators for the nonlinear matter power spectrum beyond Λ CDM (13 pages)	123540
Hans A. Winther, Santiago Casas, Marco Baldi, Kazuya Koyama, Baojiu Li, Lucas Lombriser, and Gong-Bo Zhao	
Loop quantum cosmological dynamics of scalar-tensor theory in the Jordan frame (15 pages)	123541
Yu Han	
Energy-momentum tensor and helicity for gauge fields coupled to a pseudoscalar inflaton (18 pages)	123542
M. Ballardini, M. Braglia, F. Finelli, G. Marozzi, and A. A. Starobinsky	
No-boundary prescriptions in Lorentzian quantum cosmology (18 pages)	123543
Alice Di Tucci, Jean-Luc Lehnars, and Laura Sberna	
Clustering of primordial black holes formed in a matter-dominated epoch (17 pages)	123544
Takahiko Matsubara, Takahiro Terada, Kazunori Kohri, and Shuichiro Yokoyama	
Horizon thermodynamics in holographic cosmological models with a power-law term (16 pages)	123545
Nobuyoshi Komatsu	
Breaking a dark degeneracy: The gamma-ray signature of early matter domination (25 pages)	123546
M. Sten Delos, Tim Linden, and Adrienne L. Erickcek	
Charged particle and strong cosmic censorship in Reissner–Nordström–de Sitter black holes (10 pages)	124001
Yongwan Gim and Bogeun Gwak	
Vacuum energy in the effective field theory of general relativity. II. Inclusion of fermions and a comment on the QCD contribution (8 pages)	124002
J. Gegelia and Ulf-G. Meißner	
Accuracy of source localization for eccentric inspiraling binary mergers using a ground-based detector network (18 pages)	124003
Hsing-Po Pan, Chun-Yu Lin, Zhoujian Cao, and Hwei-Jang Yo	
Spherical ansatz for parameter-space metrics (8 pages)	124004
Bruce Allen	
Emission channels from perturbed quantum black holes (10 pages)	124005
Ram Brustein and Yotam Sherf	
Quasinormal modes of black holes. II. Padé summation of the higher-order WKB terms (11 pages)	124006
Jerzy Matyjasek and Małgorzata Telecka	

(Continued)



Polarization modes of gravitational waves in quadratic gravity (14 pages)	124007
Pratik Wagle, Alexander Saffer, and Nicolás Yunes	
Effect of orbital eccentricity on the dynamics of precessing compact binaries (17 pages)	124008
Khun Sang Phukon, Anuradha Gupta, Sukanta Bose, and Pankaj Jain	
Strong cosmic censorship for a scalar field in a Born-Infeld-de Sitter black hole (11 pages)	124009
Qingyu Gan, Guangzhou Guo, Peng Wang, and Houwen Wu	
Compact binary waveform center-of-mass corrections (22 pages)	124010
Charles J. Woodford, Michael Boyle, and Harald P. Pfeiffer	
Quasilocal energy of a charged rotating object described by the Kerr-Newman metric (11 pages)	124011
Bjoern S. Schmekel	
Anatomy of a thermal black hole mimicker (16 pages)	124012
Jing Ren	
Theory-agnostic framework for dynamical scalarization of compact binaries (16 pages)	124013
Mohammed Khalil, Noah Sennett, Jan Steinhoff, and Alessandra Buonanno	
Impact of energy-momentum nonconservation on radial pulsations of strange stars (12 pages)	124014
H. Maulana and A. Sulaksono	
Self-force effects on the marginally bound zoom-whirl orbit in Schwarzschild spacetime (30 pages)	124015
Leor Barack, Marta Colleoni, Thibault Damour, Soichiro Isoyama, and Norichika Sago	
Constraints on quasidilaton massive gravity (8 pages)	124016
Katarina Martinovic and Mairi Sakellariadou	
Resolving the van Dam-Veltman-Zakharov and strong coupling problems in massive gravity and bigravity (20 pages)	124017
Gregory Gabadadze, Daniel Older, and David Pirtskhalava	
Thermodynamics of static solutions in $(n + 1)$ -dimensional quintic quasitopological gravity (11 pages)	124018
A. Bazrafshan, F. Naeimipour, A. R. Olamaei, and M. Ghanaatian	
Overcharging higher curvature black holes (7 pages)	124019
Rajes Ghosh, C. Fairoos, and Sudipta Sarkar	

PART B

Timelike geodesics in naked singularity and black hole spacetimes (21 pages)	124020
Parth Bambhaniya, Ashok B. Joshi, Dipanjan Dey, and Pankaj S. Joshi	
Simplest static and stationary vacuum quadrupolar metrics (8 pages)	124021
I. M. Mejía, V. S. Manko, and E. Ruiz	
Astrophysical signal consistency test adapted for gravitational-wave transient searches (10 pages)	124022
V. Gayathri, P. Bacon, A. Pai, E. Chassande-Mottin, F. Salemi, and G. Vedovato	
Perturbations of stealth black holes in degenerate higher-order scalar-tensor theories (12 pages)	124023
Claudia de Rham and Jun Zhang	
Shadow cast and deflection of light by charged rotating regular black holes (18 pages)	124024
Rahul Kumar, Sushant G. Ghosh, and Anzhong Wang	
Self-consistent description of a spherically-symmetric gravitational collapse (8 pages)	124025
Daniel R. Terno	
Fate of a neutron star with an endoparasitic black hole and implications for dark matter (11 pages)	124026
William E. East and Luis Lehner	
Perturbations of an extremal Kerr spacetime: Analytic framework and late-time tails (25 pages)	124027
Marc Casals and Peter Zimmerman	
Resonant dynamics in higher dimensional anti-de Sitter spacetime (7 pages)	124028
Nils Deppe	
Constant potentials in 6D Einstein-Gauss-Bonnet theory (10 pages)	124029
Sudan Hansraj, Sunil D. Maharaj, and Brian Chilambwe	
Gravitational wave echo spectra (10 pages)	124030
Randy S. Conklin and Bob Holdom	

(Continued)



Stable bound orbits around a supersymmetric black lens (6 pages)	124031
Shinya Tomizawa and Takahisa Igata	
Improved constraints on modified gravity with eccentric gravitational waves (24 pages)	124032
Sizheng Ma and Nicolás Yunes	
Ruppeiner geometry, phase transitions, and the microstructure of charged AdS black holes (24 pages)	124033
Shao-Wen Wei, Yu-Xiao Liu, and Robert B. Mann	
Almost-Killing equation: Stability, hyperbolicity, and black hole Gauss law (10 pages)	124034
Justin C. Feng, Edgar Gasperín, and Jarrod L. Williams	
Cosmology of Lorentz fiber-bundle induced scalar-tensor theories (12 pages)	124035
S. Ikeda, Emmanuel N. Saridakis, P. C. Stavrinos, and A. Triantafyllopoulos	
Scalar modes in extended hybrid metric-Palatini gravity: Weak field phenomenology (15 pages)	124036
Flavio Bombacigno, Fabio Moretti, and Giovanni Montani	
Gravitational waves and higher dimensions: Love numbers and Kaluza-Klein excitations (8 pages)	124037
Vitor Cardoso, Leonardo Gualtieri, and Christopher J. Moore	
Ingoing Eddington-Finkelstein metric of an evaporating black hole (19 pages)	124038
Shohreh Abdolrahimi, Don N. Page, and Christos Tzounis	
Luminal propagation of gravitational waves in scalar-tensor theories: The case for torsion (17 pages)	124039
José Barrientos, Fabrizio Cordonier-Tello, Cristóbal Corral, Fernando Izaurieta, Perla Medina, Eduardo Rodríguez, and Omar Valdivia	
Noether charge and black hole entropy in teleparallel gravity (11 pages)	124040
F. Hammad, D. Dijamco, A. Torres-Rivas, and D. Bérubé	
Multiwaveform cross-correlation search method for intermediate-duration gravitational waves from gamma-ray bursts (21 pages)	124041
Eric Sowell, Alessandra Corsi, and Robert Coyne	
Binary neutron star mergers: Effects of spin and post-merger dynamics (17 pages)	124042
William E. East, Vasileios Paschalidis, Frans Pretorius, and Antonios Tsokaros	
General perfect fluid perturbations of homogeneous and orthogonal locally rotationally symmetric class II cosmologies (19 pages)	124043
Robin Törnkqvist and Michael Bradley	
On the absence of conformally flat slicings of the Kerr spacetime (11 pages)	124044
Antonio De Felice, François Larrouturnou, Shinji Mukohyama, and Michele Oliosi	
Induced spins from scattering experiments of initially nonspinning black holes (8 pages)	124045
Patrick E. Nelson, Zachariah B. Etienne, Sean T. McWilliams, and Viviana Nguyen	
Constructing binary neutron star initial data with high spins, high compactnesses, and high mass ratios (16 pages)	124046
Wolfgang Tichy, Alireza Rashti, Tim Dietrich, Reetika Dudi, and Bernd Brügmann	
Growth of matter perturbations in the bi-Galileons field model (21 pages)	124047
Hamza Boumaza and Khireddine Nouicer	
New loop quantum cosmology modifications from gauge-covariant fluxes (19 pages)	124048
Klaus Liegener and Parampreet Singh	
Some physical implications of regularization ambiguities in SU(2) gauge-invariant loop quantum cosmology (21 pages)	124049
Klaus Liegener and Parampreet Singh	
Time delay of timelike particles in gravitational lensing of the Schwarzschild spacetime (16 pages)	124050
Junji Jia and Haotian Liu	
Asymptotic conformal symmetry at spatial infinity (20 pages)	124051
Sepideh Bakhoda, Fatemeh Mahdiah, and Hossein Shojaie	
First order symmetry operators for the linearized field equation of metric perturbations (15 pages)	124052
Yoji Michishita	
Closed form expressions for gravitational multipole moments of elementary solids (7 pages)	124053
Julian Stirling and Stephan Schlamminger	
Stability of rotating black holes in Einstein dilaton Gauss-Bonnet gravity (6 pages)	124054
Maria Okounkova	

(Continued)



Scalarized charged black holes with scalar mass term (8 pages)	124055
De-Cheng Zou and Yun Soo Myung	
Relativistic mean motion resonance (20 pages)	124056
Huan Yang, Béatrice Bonga, Zhipeng Peng, and Gongjie Li	
Thick brane in reduced Horndeski theory (9 pages)	124057
Qi-Ming Fu, Hao Yu, Li Zhao, and Yu-Xiao Liu	
Waveform of gravitational waves in the ghost-free parity-violating gravities (9 pages)	124058
Jin Qiao, Tao Zhu, Wen Zhao, and Anzhong Wang	
Revisiting scalar and tensor perturbations in a nonlocal gravity (6 pages)	124059
S. X. Tian and Zong-Hong Zhu	
Weak cosmic censorship conjecture in Einstein-Born-Infeld black holes (7 pages)	124060
Yan-Li He and Jie Jiang	
Models of phase stability in Jackiw-Teitelboim gravity (16 pages)	124061
Arindam Lala and Dibakar Roychowdhury	
Charged Dirac perturbations on Reissner-Nordström-anti-de Sitter spacetimes: Quasinormal modes with Robin boundary conditions (15 pages)	124062
Mengjie Wang, Carlos Herdeiro, and Jiliang Jing	
Charged Ellis wormhole and black bounce (14 pages)	124063
Hyat Huang and Jinbo Yang	
Role of matter in gravitation: Going beyond the Einstein-Maxwell theory (5 pages)	124064
A. Emir Gümrükçüoğlu and Ryo Namba	
Geometrical hypotheses underlying wave functions and their emerging dynamics (11 pages)	125001
Erico Goulart and Nelson Pinto-Neto	
Three-dimensional superconformal quantum mechanics with $sl(2 1)$ dynamical symmetry (17 pages)	125002
Ivan E. Cunha and Francesco Toppan	
Fock quantization of the Dirac field in hybrid quantum cosmology: Relation with adiabatic states (10 pages)	125003
Beatriz Elizaga Navascués, Guillermo A. Mena Marugán, and Santiago Prado	
Quantum imaging using relativistic detectors (9 pages)	125004
Nicholas Bornman, Achim Kempf, and Andrew Forbes	
Conformality of $1/N$ corrections in Sachdev-Ye-Kitaev-like models (20 pages)	125005
Stéphane Dartois, Harold Erbin, and Swapnamay Mondal	
Aspects of the negative mode problem in quantum tunneling with gravity (8 pages)	125006
Sebastian F. Bramberger, Mariam Chitishvili, and George Lavrelashvili	
UV considerations on scattering amplitudes in a web of theories (19 pages)	125007
John Joseph M. Carrasco and Laurentiu Rodina	
Entropy bounds and nonlinear electrodynamics (12 pages)	125008
F. T. Falciano, M. L. Peñañiel, and Santiago Esteban Perez Bergliaffa	
Thermodynamics of accelerated fermion gases and their instability at the Unruh temperature (10 pages)	125009
George Y. Prokhorov, Oleg V. Teryaev, and Valentin I. Zakharov	
Duration of classicality of an inhomogeneous quantum field with repulsive contact self-interactions (9 pages)	125010
Ariel Arza, Sankha S. Chakrabarty, Seishi Enomoto, Yaqi Han, and Elisa Todarello	
Self-gravitating $SU(5)$ Higgs domain walls as a braneworld (15 pages)	125011
Nelson Pantoja	
Expansion of Einstein-Yang-Mills theory by differential operators (45 pages)	125012
Bo Feng, Xiaodi Li, and Kang Zhou	
Tunneling between Schwarzschild-de Sitter vacua (10 pages)	125013
Klaountia Pasmatsiou	
Use of Lagrange multiplier fields to eliminate multiloop corrections (14 pages)	125014
D. G. C. McKeon, F. T. Brandt, J. Frenkel, and G. S. S. Sakoda	
Seiberg-Witten geometry of four-dimensional $\mathcal{N} = 2$ SO-USp quiver gauge theories (17 pages)	125015
Xinyu Zhang	

(Continued)



CONTENTS - *Continued*

PHYSICAL REVIEW D

THIRD SERIES, VOLUME 100, NUMBER 12

D15 DECEMBER 2019

Topological order in the color-flavor locked phase of a $(3 + 1)$ -dimensional $U(N)$ gauge-Higgs system (13 pages)	125016
Yoshimasa Hidaka, Yuji Hirono, Muneto Nitta, Yuya Tanizaki, and Ryo Yokokura	
Tree-level processes in very special relativity (10 pages)	125017
R. Bufalo and T. Cardoso e Bufalo	
Exact results for scattering on ultrashort plane wave backgrounds (9 pages)	125018
A. Ilderton	
Ground state excitation of an atom strongly coupled to a free quantum field (24 pages)	125019
Jen-Tsung Hsiang and Bei-Lok Hu	
History state formalism for scalar particles (13 pages)	125020
N. L. Diaz, J. M. Matera, and R. Rossignoli	
Fragileness of exact I -ball/oscillon (9 pages)	125021
Masahiro Ibe, Masahiro Kawasaki, Wakutaka Nakano, and Eisuke Sonomoto	
Massive Rarita-Schwinger field in de Sitter space (18 pages)	125022
Hamed Pejhan, Mohammad Enayati, Jean-Pierre Gazeau, and Anzhong Wang	
Gravitational dressing, soft charges, and perturbative gravitational splitting (10 pages)	126001
Steven B. Giddings	
From minimal gravity to open intersection theory (15 pages)	126002
Alexander Alexandrov, Hisayoshi Muraki, and Chaiho Rim	
Fermionic string theories with deformed dispersion relations (11 pages)	126003
Hocine Randji and Nadir Belaloui	
Entanglement entropy and subregion complexity in thermal perturbations around pure AdS spacetime (20 pages)	126004
Aranya Bhattacharya, Kevin T. Grosvenor, and Shibaji Roy	
Holographic complexity of local quench at finite temperature (10 pages)	126005
Dmitry S. Ageev	
Large breakdowns of entanglement wedge reconstruction (7 pages)	126006
Chris Akers, Adam Levine, and Stefan Leichenauer	
Note on the spectral flow operator (11 pages)	126007
Gaston Giribet	
Horizon molecules in causal set theory (17 pages)	126008
Christopher Barton, Andrew Counsell, Fay Dowker, Dewi S. W. Gould, Gwylim Taylor, and Ian Jubb	
Chern-Simons theory on Seifert manifold and matrix model (19 pages)	126009
Arghya Chattopadhyay, Suvankar Dutta, and Neetu	
Quantum information bound on the energy (22 pages)	126010
Raphael Bousso, Arvin Shahbazi-Moghaddam, and Marija Tomašević	
☞ Duality invariant cosmology to all orders in α' (21 pages)	126011
Olaf Hohm and Barton Zwiebach	
Pole skipping with finite-coupling corrections (15 pages)	126012
Makoto Natsuume and Takashi Okamura	
Chiral vortical conductivity across a topological phase transition from holography (11 pages)	126013
Xuanting Ji, Yan Liu, and Xin-Meng Wu	
Heterotic/heterotic and heterotic/F-theory duality (28 pages)	126014
Lara B. Anderson, He Feng, Xin Gao, and Mohsen Karkheiran	
Holographic line defects in $F(4)$ gauged supergravity (11 pages)	126015
Kevin Chen and Michael Gutperle	
Universality of the area product: Solutions with conical singularity (7 pages)	126016
Hanif Golchin	
Late time quantum chaos of pure states in random matrices and in the Sachdev-Ye-Kitaev model (9 pages)	126017
Tokiro Numasawa	
Marginal deformations and defect anomalies (7 pages)	126018
Lorenzo Bianchi	

(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**, 00001 (2014).

CONTENTS - *Continued*

PHYSICAL REVIEW D

THIRD SERIES, VOLUME 100, NUMBER 12

D15 DECEMBER 2019

Topologically twisted index in the 't Hooft limit and the dual AdS_4 black hole entropy (19 pages)	126019
Leopoldo A. Pando Zayas and Yu Xin	
Contact geometry and thermodynamics of black holes in AdS spacetimes (17 pages)	126020
Aritra Ghosh and Chandrasekhar Bhamidipati	
Quantum and classical correlations inside the entanglement wedge (13 pages)	126021
Koji Umemoto	
Berry curvature, horocycles, and scattering states in $\text{AdS}_3/\text{CFT}_2$ (23 pages)	126022
Péter Lévy	
Heavy holographic exotics: Tetraquarks as Efimov states (16 pages)	126023
Yizhuang Liu, Maciej A. Nowak, and Ismail Zahed	
 Out-of-equilibrium chiral magnetic effect and momentum relaxation in holography (13 pages)	126024
Jorge Fernández-Pendás and Karl Landsteiner	
Dessin d'enfant and a description of mutually nonlocal 7-branes without using branch cuts (12 pages)	126025
Shin Fukuchi, Naoto Kan, Shun'ya Mizoguchi, and Hitomi Tashiro	
BTZ black hole with Korteweg–de Vries-type boundary conditions: Thermodynamics revisited (9 pages)	126026
Cristián Erices, Miguel Riquelme, and Pablo Rodríguez	

COMMENTS

Comment on “Generalized near horizon extreme binary black hole geometry” (2 pages)	128501
Anton Galajinsky	

ERRATA

Publisher's Note: Asymptotic gravitational wave fluxes from a spinning particle in circular equatorial orbits around a rotating black hole [Phys. Rev. D 93, 044015 (2016)] (1 pages)	129901
Enno Harms, Georgios Lukes-Gerakopoulos, Sebastiano Bernuzzi, and Alessandro Nagar	
Publisher's Note: Spinning test body orbiting around a Schwarzschild black hole: Circular dynamics and gravitational-wave fluxes [Phys. Rev. D 94, 104010 (2016)] (1 pages)	129902
Enno Harms, Georgios Lukes-Gerakopoulos, Sebastiano Bernuzzi, and Alessandro Nagar	
Erratum: Nonstrange quark stars from an NJL model with proper-time regularization [Phys. Rev. D 100, 123003 (2019)] (1 pages)	129903
Qingwu Wang, Chao Shi, and Hong-Shi Zong	

