

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

Part A consists of articles 031301–034038, Part B articles 034039–035018, and Part C articles 035019–039904(E)

PART A

LETTERS

Large CP violation in $\Lambda_b \rightarrow \Lambda D$ decays and extraction of the Cabibbo-Kobayashi-Maskawa angle γ (6 pages)	L031301
Zhou Rui, Zhi-Tian Zou, Ya Li, and Ying Li	
One more radiative-recoil correction to the Lamb shift in muonium (5 pages)	L031302
Michael I. Eides and Valery A. Shelyuto	
Beautiful and charming energy correlators (8 pages)	L031501
Evan Craft, Kyle Lee, Bianka Meçaj, and Ian Mould	
Nonlocal nonstabilizerness from holographic Schwinger pair production (8 pages)	L031502
Sebastian Grieninger	
Kinetic theories: From curved space to flat space (7 pages)	L031503
Shu Lin	
Diffraction production of heavy quarkonia at the Electron Ion Collider (6 pages)	L031504
Mohammad Yousuf Jamal, Ajaharul Islam, Aritra Bandyopadhyay, and Santosh K. Das	
Revisiting the role of saturation in diffractive vector meson production (8 pages)	L031505
Heikki Mäntysaari, Hendrik Roch, Björn Schenke, Chun Shen, and Wenbin Zhao	
Scalar and tensor structures in $J/\psi J/\psi$ scattering from lattice QCD (7 pages)	L031506
Geng Li, Chunjiang Shi, Ying Chen, and Wei Sun	
Axion production and detection using a dual NMR-type experiment (7 pages)	L031701
Jeff A. Dror, Qiushi Wei, and Fengwei Yang	
Minimal dark $SU(2)$ origin of a massless Dirac neutrino (10 pages)	L031702
P. S. Bhupal Dev, Julia Gehrlein, Amartya Sengupta, and Amarjit Soni	
Gauge-invariant bubble nucleation and gravitational waves from first-order electroweak phase transitions (8 pages)	L031703
Jie Liu, Renhui Qin, and Ligong Bian	
Positivity in the renormalization of effective field theory (9 pages)	L031901
You-Peng Liao, Jasper Roosmale Nepveu, and Chia-Hsien Shen	
Feynman integral reduction and Landau singularities (7 pages)	L031902
Federico Coro, Pavel P. Novichkov, Ben Page, and Qian Song	
False vacuum decay across the quantum-to-thermal crossover: A comparison of real-time observables (7 pages)	L031903
Haiyang Wang, Renhui Qin, and Ligong Bian	



(Continued)



2470-0010(20260801)114:3;1-J



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**, 010001 (2014).

ARTICLES

Search for a new resonance decaying to a Higgs boson and a scalar boson in events with two b jets and two Z bosons in proton-proton collisions at $\sqrt{s} = 13$ TeV (30 pages)	032001
A. Hayrapetyan <i>et al.</i> (CMS Collaboration)	
Exposing the parton-hadron transition within jets with energy-energy correlators in pp collisions at $\sqrt{s} = 5.02$ TeV (22 pages)	032002
S. Acharya <i>et al.</i> (ALICE Collaboration)	
Constraints on invisible $B^+ \rightarrow K^+ X$ decays from the Belle II $B^+ \rightarrow K^+ \nu \bar{\nu}$ measurement (8 pages)	032003
Lorenz Gärtner, Nikolai Krug, Thomas Kuhr, Michael A. Schmidt, Slavomira Stefkova, and Bruce Yabsley	
Environmental γ -ray flux in Hall C at LNGS and its correlation with radon activity (13 pages)	032004
L. Luzzi, R. Santorelli, G. Zuzel, P. Agnes, D. Cano-Ott, C. Ghiano, M. Laubenstein, T. Mroz, V. Pesudo Fortes, J. Plaza del Olmo, and G. Vera Díaz	
Search for a narrow resonance with a mass between 10 and 70 GeV decaying to a pair of photons in proton-proton collisions at $\sqrt{s} = 13$ TeV (27 pages)	032005
A. Hayrapetyan <i>et al.</i> (CMS Collaboration)	
Measurements of the electron neutrino-argon differential cross section without pions in the final state in MicroBooNE (25 pages)	032006
P. Abratenko <i>et al.</i> (MicroBooNE Collaboration)	
 Photon calibration techniques for high resolution cryogenic detectors (10 pages)	032007
W. Matava and M. R. Williams	
Amplitude analysis of singly Cabibbo-suppressed decay $\Lambda_c^+ \rightarrow p K^+ K^-$ (13 pages)	032008
M. Ablikim <i>et al.</i> (BESIII Collaboration)	
CE ν NS search with cryogenic sapphire detectors at MINER: Results from the TRIGA reactor data and future sensitivity at HFIR (14 pages)	032009
D. Mondal, W. Baker, M. Chaudhuri, J. B. Dent, R. Dey, B. Dutta, V. Iyer, A. Jastram, V. K. S. Kashyap, A. Kubik, K. Lang, R. Mahapatra, S. Maludze, N. Mirabolfathi, M. Mirzakhani, B. Mohanty, H. Neog, J. L. Newstead, M. Platt, S. Sahoo, J. Sander, L. E. Strigari, and J. Walker (MINER Collaboration)	
Daily modulation constraints on light dark matter with DAMIC-M (11 pages)	032010
K. Aggarwal <i>et al.</i> (DAMIC-M Collaboration)	
Constraints on nonstandard neutrino interactions from the Borexino extended data set (26 pages)	032011
V. Antonelli <i>et al.</i> (The BOREXINO Collaboration)	
First axion search results of the SUPAX prototype experiment (7 pages)	032012
T. Schneemann, H. Bekker, A. Wickenbrock, D. Budker, K. Schmieden, M. Schott, and M. Unni	
CP violation angles from $H \rightarrow \tau\tau$ decays at the FCC-ee (9 pages)	032013
S. Giappichini, M. Klute, and M. Presilla	
Higher order perturbative and nonperturbative QCD corrections on the proton structure functions and parity violating electron asymmetry (26 pages)	033001
F. Zaidi, M. Sajjad Athar, and S. K. Singh	
Inclusive electron-proton measurement prospects in the Electron-Ion Collider early science stage (15 pages)	033002
Javier Jiménez-López, Stephen Maple, Paul R. Newman, and Katarzyna Wichmann	
Axial-vector neutral-current measurements in coherent elastic neutrino-nucleus scattering experiments (10 pages)	033003
D. Aristizabal Sierra, Pablo M. Candela, Valentina De Romeri, Dimitrios K. Papoulias, and Laura Trincado S.	
Updated measurement of the branching fraction of $D_s^+ \rightarrow \tau^+ \nu_\tau$ (14 pages)	033004
M. Ablikim <i>et al.</i> (BESIII Collaboration)	
Probing direct CP violation in $\Lambda_b^0 \rightarrow P_c^+ h^-$ ($h = \pi, K$) with final-state rescattering (12 pages)	033005
Zhu-Ding Duan, Tian-Liang Feng, Run-Hui Li, Ming-Zhu Liu, Jian-Peng Wang, and Fu-Sheng Yu	
Two-body current and axial form factor effects in charged-current quasielastic neutrino-nucleus scattering within the NEUT event generator (18 pages)	033006
T. Franco-Munoz, J. McKean, J. García-Marcos, M. Hooft, R. González-Jiménez, N. Jachowicz, and J. M. Udías	
Searches for nonstandard neutrino oscillations at neutrino telescopes with a TeV muon accelerator source (15 pages)	033007
Nicholas W. Kamp and Gray Putnam	

(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**, 010001 (2014).

Precise measurements of $D^0 \rightarrow K^- \ell^+ \nu_\ell$ and $D^+ \rightarrow \bar{K}^0 \ell^+ \nu_\ell$ decays (43 pages)	033008
M. Ablikim <i>et al.</i> (BESIII Collaboration)	
Entanglement metrics for a B -meson system (14 pages)	033009
Aashish Joshi, Prisha, Neetu Raj Singh Chundawat, and Jitendra Kumar	
Nonlinear response of flow harmonics in Gubser flow with participant-reaction planes mismatch (16 pages)	034001
Xiang Ren, Jin-Yu Hu, Hao-jie Xu, and Shi Pu	
Production of $D_s \bar{D}_s$ and $D \bar{D}$ bound states in the B decays within the Bethe-Salpeter framework (9 pages)	034002
Zhen-Yang Wang, Jing-Juan Qi, Zhen-Hua Zhang, and Xin-Heng Guo	
Gluon TMDs for tensor polarized deuterons in a spectator model (16 pages)	034003
Xiupeng Xie, Dian-Yong Chen, and Zhun Lu	
Machine learning-based b-jet tagging in pp collisions at $\sqrt{s} = 13$ TeV (9 pages)	034004
Hadi Hassan, Neelkamal Mallick, and D. J. Kim	
Top-quark decay at next-to-next-to-next-to-leading order in QCD (8 pages)	034005
Long Chen, Xiang Chen, Xin Guan, and Yan-Qing Ma	
Eikonal spin-dependent odderon and gluon Sivers function of a proton and its small- x evolution (14 pages)	034006
Sanjin Benić, Adrian Dumitru, Florian Hechenberger, and Tomasz Stebel	
Infrared spectra of some strongly-coupled chiral gauge theories (17 pages)	034007
Stefano Bolognesi, Kenichi Konishi, and Matteo Orso	
Asymptotics of superfluid Bjorken flow (12 pages)	034008
Alexander Soloviev and Michał Spaliński	
Gluon Wigner distributions in boost-invariant longitudinal position space (25 pages)	034009
Sonia, Tanmay Maji, and Hemant Kumar	
DIS dijet production in background field approach: General formalism and methods (62 pages)	034010
Tiyasa Kar, Andrey Tarasov, and Vladimir V. Skokov	
Proposed mixing between $2P$ and $1F$ wave charmonia (14 pages)	034011
Peng-Yu Sun, Tian-Le Gao, Zi-Long Man, and Xiang Liu	
Mass spectra of charged kaons and pions at finite magnetic field, temperature, and density (14 pages)	034012
Yvming Tian, Jiayi Zhang, Zhiyang Liu, Jie Mei, Jiaqi Chen, Min Zhou, Chonglong Xie, Guoyun Shao, and Shijun Mao	
Topological diagram analysis of charmed baryon decays with vector mesons (14 pages)	034013
Yixuan Wu, Fanrong Xu, and Hai-Yang Cheng	
Toward a bottom-up formulation of spin kinetic theory (15 pages)	034014
Zonglin Mo and Yi Yin	
Constraints on the odderon amplitude in the color glass condensate framework (15 pages)	034015
M. Roa, M. Siddikov, Y. Gentile, and I. Zemlyakov	
Multipole structure of nucleon tensor form factors (11 pages)	034016
Nam-Yong Ghim, Ho-Yeon Won, June-Young Kim, and Hyun-Chul Kim	
Revisiting charmonium hybrid spectroscopy (13 pages)	034017
Ri-Qing Qian, Bing Chen, and Xiang Liu	
Nonlinear Regge trajectories of quarkonia from holography (12 pages)	034018
Nelson R. F. Braga and Yan F. Ferreira	
Shear viscosity of a massless quark-gluon gas in chemical equilibrium in terms of all $2 \leftrightarrow 2$ cross sections (12 pages)	034019
Okey Ohanaka and Zi-Wei Lin	
Central multiplicity distributions in the multichannel eikonal model (10 pages)	034020
E. G. S. Luna and M. G. Ryskin	
Comparison of the hadronic vacuum polarization between hadronic τ -decay data and lattice QCD (18 pages)	034021
Noah Allen, Diogo Boito, Maarten Golterman, Kim Maltman, Lucas M. Mansur, and Santiago Peris	
Study of J/ψ mass shift and bound states: Impact of DD and DD^* meson loops (17 pages)	034022
Manpreet Kaur and Arvind Kumar	
Elastic form factors of axial-vector mesons: A contact interaction exploration (14 pages)	034023
R. J. Hernández-Pinto, L. X. Gutiérrez-Guerrero, M. A. Bedolla, J. P. Uribe-Ramírez, and A. Bashir	

(Continued)



Intrinsic coupling between transverse sphericity and elliptic flow in heavy-ion collisions (9 pages)	034024
Subikash Choudhury and Ekata Nandy	
Systematic study of fully heavy-flavored tetraquarks $Q_1 Q_2 \bar{Q}_1 \bar{Q}_2$ ($Q_{1,2} \in \{b, c\}$): Mass spectra, threshold analysis, and confrontation with LHC data (32 pages)	034025
A. A. Atangana Likéné, F. Rothen, D. Nga Ongodo, G. H. Ben-Bolie, and T. Golling	
Radiative decay of fully heavy tetraquarks into quarkonia (11 pages)	034026
Hao Yang, Songlin Lyu, and Bingwei Long	
Mapping the critical region along the second-order chiral phase boundary (15 pages)	034027
Shi Yin	
Factorization theorem for quasi-TMD distributions with kinematic power corrections (12 pages)	034028
Alejandro Bris Cuerpo, Arturo Arroyo-Castro, and Alexey Vladimirov	
Direct determination of the structure functions F_L , F_S , and G from F_2 and dF_2/dQ^2 to $O(\alpha_s^2)$ (12 pages)	034029
G. R. Boroun, Loyal Durand, and Phuoc Ha	
Strange pentaquark molecules in QCD sum rules (21 pages)	034030
Di Ben and Sheng-Qi Zhang	
Quantum entanglement in electron-nucleus collisions: Role of the linearly polarized gluon distribution (20 pages)	034031
Michael Fucilla, Yoshitaka Hatta, and Bo-Wen Xiao	
Effects of fermions in one-loop propagators in the Curci-Ferrari-Delbourgo-Jarvis gauge (13 pages)	034032
Santiago Cabrera, Marcela Peláez, and Matthieu Tissier	
$S - P - D$ mixing in vector quarkonia from the Salpeter equation with optimized wave function representations (10 pages)	034033
Wen-Yuan Ke, Qiang Li, Tianhong Wang, Tai-Fu Feng, and Guo-Li Wang	
Interpretation of $\Upsilon(11020)$ as an S -wave $B_1 \bar{B} - B_1 \bar{B}^*$ molecular state (16 pages)	034034
Qing Lu, Cai Cheng, and Yin Huang	
Structure of the $X(3915)$ meson and its production in heavy ion collisions (13 pages)	034035
Sungtae Cho, Aaron Park, Su Hyoung Lee, and Sungsik Noh	
$\phi \rightarrow 3\pi$ and $\phi\pi^0$ transition form factor from Khuri-Treiman equations (17 pages)	034036
A. G. Lorenzo, M. Albaladejo, S. González-Solís, N. Hammoud, V. Mathieu, G. Montaña, A. Pilloni, D. Winney, and A. P. Szczepaniak (JPAC Collaboration)	
Determination of nuclear PDFs using Markov chain Monte Carlo methods (30 pages)	034037
N. Derakhshanian, P. Risse, T. Ježo, M. Klasen, K. Kovařík, and A. Kusina	
Hydrodynamics without a relaxation gap: Memory effects, nonlocality, and superdiffusion (10 pages)	034038
Lorenzo Gavassino, Sukanya Mitra, and Rajeev Singh	

PART B

Comparative analysis of critical regions: The renormalized quark-meson model under Polyakov loop, quark backreaction, and vector interaction effects (31 pages)	034039
Akanksha Tripathi, Suraj Kumar Rai, and Vivek Kumar Tiwari	
Branching ratios and CP violations of $B \rightarrow \rho(\omega)\gamma$ decays in the modified perturbative QCD approach and the relevant dark photonic decays of $B \rightarrow \rho(\omega)\gamma'$ (20 pages)	034040
Shang Qi and Mao-Zhi Yang	
Polarization-dependent mass modifications of ϕ meson with finite momentum in nuclear matter (18 pages)	034041
Ahmad Jafar Arifi, Philipp Gubler, and Kazuo Tsushima	
Pressure-energy equations of state of the nucleon (13 pages)	034042
Keh-Fei Liu	
Delineating neutral and charged mesons in magnetic fields (19 pages)	034043
Toru Kojo and Sakura Itatani	
Chiral anomaly in the $\eta^{(\prime)} \rightarrow \pi^+ \pi^- \gamma$ and $\eta^{(\prime)} \rightarrow \pi^+ \pi^- l^+ l^-$ decays (16 pages)	034044
M. K. Volkov, A. A. Osipov, K. Nurlan, and A. A. Pivovarov	
Classification of g -modes for neutron stars with a strong transition: Novel universal relation including slow stable hybrid stars (20 pages)	034045
M. C. Rodríguez, José C. Jiménez, and Ignacio F. Ranea-Sandoval	

(Continued)



Precision jet substructure of boosted boson decays with energy correlators (12 pages)	034046
Anjie Gao, Kyle Lee, and Xiaoyuan Zhang	
$T_{cs0}^a(2900)$, $T_{cs0}^{*}(2900)^0$, and other singly-heavy tetraquark states (23 pages)	034047
Zi-Long Man, Yu-Nan Liu, and Yan-Rui Liu	
Electromagnetic response of a relativistic drifting plasma (15 pages)	034048
Ashes Modak, Anowar Shaikh, Manu Kurian, Binata Panda, and Sadhana Dash	
Production of high-orbital kaon excited states in the K^-p reaction (18 pages)	034049
Ting-Yan Li, Zi-Yue Bai, and Xiang Liu	
Causality and stability analysis of relativistic spin hydrodynamics: Insights from a nonvanishing spin density background (25 pages)	034050
Wei Lu, Yang Zhong, and Sheng-Qin Feng	
Final-state rescattering mechanism of the $\Delta(1232)^{++}$ production in $\Lambda_c^+ \rightarrow K^- \pi^+ p$ decay (10 pages)	034051
Zu-Xin Cai, Cheng Chen, Si-Wei Liu, Xiang Wei, Gang Li, Xiao-Hai Liu, and Ju-Jun Xie	
Complex heavy quarkonium potential in an anisotropic collisional quark-gluon plasma (22 pages)	034052
Manas Debnath, Lata Thakur, and Najmul Haque	
Study of $B \rightarrow K_0^{*}(1430)\ell^+\ell^-$ decay in the standard model and scalar leptoquark scenario (13 pages)	034053
M. Dadashzadeh and K. Azizi	
Mesonic modes in a confining model at finite temperature (11 pages)	034054
A. E. Radzhabov and X. L. Shang	
Efficient many-jet event generation with flow matching (21 pages)	034055
E. Bothmann, T. Janßen, M. Knobbe, B. Schmitzer, and F. Sinz	
Analysis on the parton distribution functions of heavy mesons (18 pages)	034056
Satyajit Puhan	
Role of $K_0^{*}(700)$ exchange in the $p\bar{p} \rightarrow \Lambda\bar{\Lambda}$ reaction (12 pages)	034057
Hao-Nan Wang, Cheng Chen, Xing-Yi Ji, De-Min Li, Yue Ma, En Wang, and Ju-Jun Xie	
Lattice-based equation of state with a critical point from constant entropy contours and its comparison to effective QCD approaches (20 pages)	034501
Hitansh Shah, Mauricio Hippert, Jorge Noronha, Claudia Ratti, and Volodymyr Vovchenko	
Roberge-Weiss transition as a probe for conformality in many-flavor QCD (14 pages)	034502
Massimo D'Elia, Marco Nacci, and Kevin Zambello	
Generalizing deconfined criticality to 3D N -flavor $SU(2)$ quantum chromodynamics on the fuzzy sphere (21 pages)	034503
Emilie Huffman, Zheng Zhou (周正), Yin-Chen He, and Johannes S. Hofmann	
Chiral symmetry breaking and pion decay in a magnetic field (16 pages)	034504
Prabal Adhikari and Brian C. Tiburzi	
Low-energy DD scattering in lattice QCD (14 pages)	034505
Pan-Pan Shi, Feng-Kun Guo, Chuan Liu, Liuming Liu, Peng Sun, Jia-Jun Wu, and Hanyang Xing	
Coupled-channel approach to isotensor $\pi\pi\pi$ scattering from lattice QCD (24 pages)	034506
Yuchuan Feng, Chris Culver, Michael Döring, Maxim Mai, Andrei Alexandru, and Frank X. Lee	
Inclusive semileptonic $D_s \rightarrow X_s \ell \bar{\nu}$ decays from lattice QCD: Continuum and chiral extrapolation (19 pages)	034507
Ryan Kellermann, Alessandro Barone, Ahmed Elgaziari, Shoji Hashimoto, Takashi Kaneko, Zhi Hu, and Andreas Jüttner	
 Precision lattice calculation of the hadronic contribution to the running of the electroweak gauge couplings (36 pages)	034508
Alessandro Conigli, Dalibor Djukanovic, Georg von Hippel, Simon Kuberski, Harvey B. Meyer, Kohtaroh Miura, Konstantin Ottnad, Andreas Risch, and Hartmut Wittig	
Two-nucleon systems at $m_\pi \approx 292$ MeV from lattice QCD (18 pages)	034509
Kuan Zhang, Kang Yu, Yiqi Geng, Chuan Liu, Liuming Liu, Peng Sun, Jia-Jun Wu, and Ruilin Zhu	
Charged Abelian Higgs phase transitions in three-dimensional compact lattice $U(1)$ gauge models with multicharge scalar matter (16 pages)	034510
Claudio Bonati, Filippo Mariani, and Ettore Vicari	
Hamiltonian lattice formulation of compact Maxwell-Chern-Simons theory (32 pages)	034511
Changan Peng, Maria Cristina Diamantini, Lena Funcke, Syed Muhammad Ali Hassan, Karl Jansen, Stefan Kühn, Di Luo, and Pranay Naredi	

(Continued)



$\eta_c\eta_c$ and $J/\psi J/\psi$ scattering from lattice QCD (38 pages)	034512
Geng Li, Chunjiang Shi, Ying Chen, and Wei Sun	
Charged kaon electric polarizability from four-point functions in lattice QCD (17 pages)	034513
Shayan Nadeem, Walter Wilcox, and Frank X. Lee	
Varieties of electrically charged physical states in $SU(2) \times U(1)$ lattice gauge Higgs theory (14 pages)	034514
Jeff Greensite	
Two-mode bosonic quocit for high energy physics (13 pages)	034515
Doğa Murat Kürkçüoğlu, Henry Lamm, Oluwadara Ogunkoya, and Leonardo Pierattelli	
Analytic structure of the QCD phase diagram in the complex-temperature plane (13 pages)	034516
Gökçe Başar and Vladimir V. Skokov	
Tightening energy-based boson truncation bound using Monte Carlo-assisted methods (28 pages)	034517
Jinghong Yang, Christopher F. Kane, and Shabnam Jabeen	
Lattice chiral symmetry from bosons in $3 + 1D$ (30 pages)	034518
Zhiyao Lu, Sahand Seifnashri, and Shu-Heng Shao	
Understanding the structure of nucleon excitations from their wavefunctions (29 pages)	034519
Jackson A. Mickley, Waseem Kamleh, Derek B. Leinweber, and Finn M. Stokes	
Strange and flavor-singlet axial form factors of the nucleon from lattice QCD (14 pages)	034520
Alessandro Barone, Dalibor Djukanovic, Georg von Hippel, Harvey B. Meyer, Konstantin Otnad, and Hartmut Wittig	
Cosmic string gravitational wave probe of leptogenesis: Thermal, nonthermal, near-resonant, and flavorful (27 pages)	035001
Anish Ghoshal, Angus Spalding, and Graham White	
Uncertainties in the neutrino fog: Studying the isospin-violating dark matter case (11 pages)	035002
Laura Duque, J. M. Lamprea, and O. G. Miranda	
All-electron dark matter-electron scattering with random-phase approximation dielectric screening and local field effects (29 pages)	035003
Cyrus E. Dreyer, Rouven Essig, Marivi Fernandez-Serra, Megan Hott, and Aman Singal	
New constraints on axions with gamma-ray observations of the Crab Nebula (11 pages)	035004
Kazunori Kohri and Haruki Takahashi	
Probing the neutrino mass through semileptonic meson decays (12 pages)	035005
Damir Bečirević, Claire Chevallier, Svjetlana Fajfer, Nejc Košnik, and Lovre Pavičić	
Revisiting the electroweak supersymmetry from the generalized minimal supergravity (14 pages)	035006
Imtiaz Khan, Ali Muhammad, Tianjun Li, and Shabbar Raza	
Systematic study of lepton-flavor-violating dark matter interactions via indirect detection in effective field theories (19 pages)	035007
Sahabub Jahedi, Jin-Han Liang, Yi Liao, Xiao-Dong Ma, and Yoshiki Uchida	
Electroweak right-handed neutrino portal dark matter (37 pages)	035008
Wan-Zhe Feng, Ao Li, Zong-Huan Ye, and Zi-Hui Zhang	
Beyond $SU(N)$: $U(3) \times U(2)$ as the underlying symmetry of the strong and electroweak interactions (8 pages)	035009
Antonio Herrero-Brocal, Javier Perez-Soler, and Avelino Vicente	
New gravitational-wave templates for metastable cosmic strings: Loop breaking versus network collapse (19 pages)	035010
Doa Hashemi Asl and Kai Schmitz	
Modulus stabilization of modular flavor models in Jordan frame supergravity (17 pages)	035011
Fei Wang and Ying Kai Zhang	
Didecay signature of new physics particles at intensity frontier experiments (26 pages)	035012
Giovani Dalla Valle Garcia and Maksym Ovchinnikov	
Vacuum moduli space of the minimal supersymmetric standard model (19 pages)	035013
Yang-Hui He, Vishnu Jejjala, Brent D. Nelson, Hal Schenck, and Michael Stillman	
Electroweak phase transitions in a $U(1)_D$ extension of the standard model with dimension-six operators: Gravitational waves and LHC signatures (33 pages)	035014
Arka Bhattacharyya, Sanjoy Biswas, and Saurabh Niyogi	

(Continued)



Multimessenger astroparticle physics: The first constraint on light millicharged dark matter via time-delay analysis of GRB GW170817A (7 pages)	035015
Wenxing Zhang, Junle Pei, Xin Zhang, and Tianjun Li	
Minimal dark matter: Generalized framework and direct-detection sensitivity (26 pages)	035016
Spencer Griffith, Juri Smirnov, Laura Lopez-Honorez, and John F. Beacom	
Existence of bound states in SIMP dark sectors (26 pages)	035017
Daris Samart, Xiaoyong Chu, and Josef Pradler	
Dynamical determination of the cut-off scale in loop-induced neutrino mass models with noninvertible symmetry (7 pages)	035018
Hiroshi Okada and Jia-Jun Wu	

PART C

Structure of multi-axion solutions to the strong CP problem (44 pages)	035019
Mario Fernández Navarro, Marta F. Zamoro, Marko Pesut, and Xavier Ponce Díaz	
Super-Heisenberg protocol for dark matter and high-frequency gravitational wave search (11 pages)	035020
Wakutaka Nakano and Ryoto Takai	
Exploring the dark axion portal in the LUXE-NPOD experiment (19 pages)	035021
Noam Ness and Barry E. Cimirg	
Axion dark matter detection via shift current (24 pages)	035022
Dan Kondo, Takahiro Morimoto, Genta Osaki, and Thanaporn Sichanugrist	
Searching for ultralight boson interactions with Josephson junction interferometry (14 pages)	035023
Djuna Croon and Tanmay Kumar Poddar	
Flavor and electroweak precision constraints on a simplified dark matter model with a light spin-0 mediator (42 pages)	035025
Lipika Kolay and Soumitra Nandi	
Anomaly flow and anomaly cancellation (22 pages)	035026
Yutaka Hosotani	
Perturbative analysis of CPT -odd Lorentz-violating scalar QCD (19 pages)	035027
J. C. C. Felipe, L. C. T. Brito, A. C. Lehum, B. Altschul, and A. Yu Petrov	
Five benefits of grand unified $SU(5)$ brane world scenario (28 pages)	035028
Masato Arai, Filip Blaschke, Minoru Eto, and Masaki Kawaguchi	
Implications of a portal vectorlike lepton on associated Higgs boson production at a multi-TeV muon collider (31 pages)	035029
Krishna Tewary, Sanjoy Biswas, and Shivam Verma	
Leptophilic scalar dark matter in $U(1)_{L_\mu-L_\tau}$: Evading direct detection and prospective neutron star heating (24 pages)	035031
Chengfeng Cai and Hong-Hao Zhang	
General-relativistic structure of two-component quantum dark fermion stars (20 pages)	035032
Ilídio Lopes	
Robustness of type-II seesaw model collider searches (15 pages)	035033
Christoph Englert, Manimala Mitra, Wrishik Naskar, and Subham Saha	
Sensitivity of MAGIX@MESA to BSM effects via Bethe-Heitler pair production (8 pages)	035034
Aleksandr Pustyntsev and Marc Vanderhaeghen	
Echoes of global cosmic strings (14 pages)	035035
Jeff Dror and Antonios Kyriazis	
Revisiting $SU(5)$ Yukawa sectors through quantum corrections (21 pages)	035036
Saurabh K. Shukla	
CP violation in $D \rightarrow KK$ decays: A comparative analysis of triplet and sextet diquarks (14 pages)	035037
David Delepine, Shaaban Khalil, and Carlos A. Ramirez	
Theoretical and experimental constraints in the $\mu - \tau$ four-lepton sector of the SMEFT: Implications to neutrino self-interactions (11 pages)	035038
Aadarsh Singh, Giancarlo D'Ambrosio, and Sudhir K. Vempati	
Electronic direct detection of light dark matter with intermediate-mass mediators (12 pages)	035039
Connor Stratman and Tanner Trickle	

(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**, 010001 (2014).

Probing leptogenesis and the minimal neutrino seesaw mechanism through gravitational waves (11 pages)	035040
Arghyajit Datta and Arunansu Sil	
Sub-GeV dark matter from cosmic ray bremsstrahlung in the atmosphere (7 pages)	035041
Branden Aitken, Peter Reimitz, and Adam Ritz	
Correlation function and bound state from the $K D_{s0}^*(2317)$ interaction (9 pages)	035042
Wen-Hao Jia, Hai-Peng Li, Wei-Hong Liang, Jing Song, and Eulogio Oset	
Nonholomorphic impact on $t - b - \tau$ Yukawa unification in minimal gauge mediated supersymmetry breaking (22 pages)	035043
Ali Çiçi, Büşra Niş, and Cem Salih Ün	
Blocking mesogenesis (11 pages)	035044
Chaja Baruch, Gilly Elor, Jared M. Goldberg, Omer Shtaiif, and Yotam Soreq	
Discovery prospects of a singly charged scalar at μ TRISTAN (17 pages)	035045
Joseph George, Nobuchika Okada, Dibyashree Sengupta, and Sudhir K. Vempati	
Axionlike particles and sterile neutrinos solve the $B \rightarrow K \nu \bar{\nu}$ and $B \rightarrow \pi K$ puzzles (10 pages)	035046
Bhubanjyoti Bhattacharya, Alakabha Datta, Girish Kumar, and Danny Marfatia	
Beyond half-life limits: Robust operator-level interpretation of multi-isotope neutrinoless double-beta decay (12 pages)	035047
K. Ishidoshiro	
Unidentified falling objects in the LHC as dark matter signals (17 pages)	036001
Xunyu Liang and Ariel Zhitnitsky	
Multichannel phase space with Feynman-diagram-gauge amplitudes (37 pages)	036002
Kaoru Hagiwara, Junichi Kanzaki, Fabio Maltoni, Kentarou Mawatari, and Ya-Juan Zheng	
Extending the Euler-Heisenberg action to include effects of local Lorentz-symmetry violating backgrounds (15 pages)	036003
Wagno Cesar e Silva, João Paulo S. Melo, and José A. Helayël-Neto	
Functional renormalization group flows as diffusive Hamilton-Jacobi-type equations (51 pages)	036004
Adrian Koenigstein, Martin J. Steil, and Stefan Floerchinger	
Dipole-dipole scattering: Summing large Pomeron loops in the nonlinear evolution with a leading twist kernel (18 pages)	036005
Eugene Levin	
Precise theoretical prediction on branching fractions and polarizations of $D \rightarrow VV$ decays (13 pages)	036006
Jing Ou-Yang, Hui Zheng, Run-Hui Li, and Si-Hong Zhou	
Probing excited $q\bar{q}$ mesons via QCD sum rules (16 pages)	036007
Shuang-Hong Li, Wei-Yang Lai, and Hong-Ying Jin	
Probing Planck-scale physics with high-frequency gravitational waves (28 pages)	036008
Stefano Profumo	
Study of quark and gluon jet identification in photoproduction at the EIC (15 pages)	036009
Siddharth Narayan Singh, R. Aggarwal, and M. Kaur	
Energy correlators in warped geometries (16 pages)	036010
Lorenzo Ricci and Raman Sundrum	
Gauged Q -balls in flat potentials (10 pages)	036011
Julian Heeck and Yu Zhi	
Inverse excitation hierarchy in doubly heavy tetraquarks within the diquark model (14 pages)	036012
Maximilian Weber, Daiki Suenaga, and Masayasu Harada	
Lee-Yang zeros and edge singularity in a mean-field approach (14 pages)	036013
Tatsuya Wada, Győző Kovács, Masakiyo Kitazawa, and Takahiro M. Doi	
Heavy-quark transport across the QCD crossover driven by a lattice-constrained in-medium potential (13 pages)	036014
Wu Wang, Yuqi Luo, Fei Sun, Sa Wang, Jungang Deng, Wei Xie, Shuang Li, and Kejun Wu	
Extracting light-cone wave functions from covariant amplitudes: A detailed study in scalar field theory (18 pages)	036015
Stéphane Munier	
Link-based causal set propagators in $1 + 1$ dimensions (13 pages)	036016
Haye Hinrichsen and Arsim Kastrati	
Prolegomena to a hybrid classical-Rydberg simulator for hadronization (9 pages)	036017
Blake Senseman, Zane Ozzello, Kenneth Heitritter, Yannick Meurice, and Stephen Mrenna	

(Continued)



Chiral first order phase transition at finite baryon density and zero temperature from self-consistent pole masses in the linear sigma model with quarks (13 pages)	036018
Alejandro Ayala, Bruno El-Bennich, Ricardo L. S. Farias, Luis A. Hernández, Bruno S. Lopes, Luis Carlos Parra Lara, and Renato Zamora	
Multifield oscillons/I-balls in the Friedberg-Lee-Sirlin model (15 pages)	036019
Kai Murai, Tatsuya Ogawa, and Fuminobu Takahashi	
Radiative decays of the $1P$, $1D$, $2S$, and $2P$ Λ_c and $1D$, $2S$, and $2P$ Ξ_c charmed baryons (16 pages)	036020
R. Gamboa-Goni, H. García-Tecocoatzí, Ailner Rivero-Acosta, A. Gutierrez-Rodriguez, A. Ramirez-Morales, E. Santopinto, and Carlos Alberto Vaquera-Araujo	
Study of the molecular properties of the P_c and P_{cs} states (30 pages)	036021
Jing-Zhi Cao, Huan-Yu Wei, Jiao-Xue Yang, Jian Sun, and Chu-Wen Xiao	
Back-to-back dijet production in DIS at arbitrary Bjorken x : TMD gluon distributions to twist-3 accuracy (26 pages)	036022
Swagato Mukherjee, Vladimir V. Skokov, Andrey Tarasov, Shaswat Tiwari, and Fei Yao	
One-point charge correlator in deep inelastic scattering (19 pages)	036023
Haotian Cao and Frank Petriello	
Approximating Grassmann valued path integrals with radial basis function neural networks (21 pages)	036024
Gábor Balassa	
Two-particle number and transverse momentum balance function with event topology in pp collisions at $\sqrt{s} = 13$ TeV (15 pages)	036025
Subash Chandra Behera and Arvind Khuntia	
Solving functional renormalization group equations with neural networks (18 pages)	036026
Yang-yang Tan, Wei-jie Fu, Lianyi He, and Lingxiao Wang	
Quantum nonstabilizer probes reveal CP phases invisible to entanglement in spin-0 decays (5 pages)	036027
Nicolás Viaux, Ariel Norambuena, and Pedro Orellana	
CMB birefringence from vacuum interfaces (17 pages)	036028
Nemanja Kaloper	
Dynamically assisted Schwinger pair production in differently polarized electric fields with the frequency chirping (20 pages)	036029
Abhinav Jangir and Anees Ahmed	
Angular momentum transfer in multiphoton pair production (13 pages)	036030
R. Z. Jiang, Z. L. Li, and Y. J. Li	
Constraining heavy neutral leptons coupled to the tau-neutrino flavor at the Large Hadron Collider (13 pages)	036031
Edis Devin Tireli, Rikke Stougaard Klausen, and Oleg Ruchayskiy	
Anomaly of 4D Weyl fermions with discrete symmetries (19 pages)	036032
Zheyang Wan	
Divergences in the hadronic light-by-light amplitude of the holographic soft-wall model (29 pages)	036033
Josef Leutgeb, Jonas Mager, and Anton Rebhan	
Encoding physics at the precision frontier (15 pages)	036034
Victor Bresó-Pla, Kevin Greif, Vinicius Mikuni, Benjamin Nachman, Tilman Plehn, Tanvi Wamorkar, and Daniel Whiteson	
Out-of-equilibrium contributions to charm hadrons in a fluid-dynamic approach (16 pages)	036035
Rossana Facen, Federica Capellino, Eduardo Grossi, Andrea Dubla, and Silvia Masciocchi	

COMMENTS

Comment on “Controlling the dynamical evolution of quantum coherence and quantum correlations in $e^+e^- \rightarrow \Lambda\bar{\Lambda}$ processes at BESIII” (2 pages)	038901
Saeed Haddadi	
Reply to “Comment on ‘Controlling the dynamical evolution of quantum coherence and quantum correlations in $e^+e^- \rightarrow \Lambda\bar{\Lambda}$ processes at BESIII’” (2 pages)	038902
Elhabib Jaloum and Mohamed Amazioug	

(Continued)



ERRATA

Erratum: Search for quantum black hole production in lepton + jet final states using proton-proton collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector [Phys. Rev. D 109 , 032010 (2024)] (2 pages)	039901
G. Aad (ATLAS Collaboration)	
Erratum: Doubly charmed baryon decays $\Xi_{cc}^{++} \rightarrow \Xi_c^{(\prime)+} \pi^+$ in the quark model [Phys. Rev. D 107 , 034009 (2023)] (3 pages)	039902
Shuge Zeng, Fanrong Xu, Peng-Yu Niu, and Hai-Yang Cheng	
Erratum: S -wave kaon-nucleon interactions from lattice QCD at the physical point [Phys. Rev. D 113 , 054506 (2026)] (6 pages)	039903
Kotaro Murakami, Sinya Aoki, Takumi Doi, Yan Lyu, and Wren Yamada (HAL QCD Collaboration)	
Erratum: Dark baryon black holes [Phys. Rev. D 111 , 095010 (2025)] (2 pages)	039904
Stefano Profumo	

