

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

Part A consists of articles 071101–074507, and Part B articles 074508–079904(E)

PART A

LETTERS

Observation of $D \rightarrow \bar{K}_1(1270)\mu^+\nu_\mu$ and test of lepton flavor universality with $D \rightarrow \bar{K}_1(1270)\ell^+\nu_\ell$ (10 pages)	L071101
M. Ablikim <i>et al.</i> (BESIII Collaboration)	
Measurement of the branching fraction and CP -violating asymmetry of the decay $B^0 \rightarrow \pi^0\pi^0$ using 387 million $\Upsilon(4S)$ decays in Belle II data (10 pages)	L071102
I. Adachi <i>et al.</i> (Belle II Collaboration)	
Measurement of branching fractions, CP asymmetry, and isospin asymmetry for $B \rightarrow \rho\gamma$ decays using Belle and Belle II data (12 pages)	L071103
I. Adachi <i>et al.</i> (The Belle and Belle II Collaborations)	
 Can plasma physics establish a significant bound on long-range dark matter interactions? (5 pages)	L071701
K. Schoeffler, N. Shukla, and L. O. Silva	
Fermion masses and mixings in string theory with Dirac neutrinos (7 pages)	L071702
Mudassar Sabir, Adeel Mansha, Tianjun Li, and Zhi-Wei Wang	
Convergence problem of gradient expansion in the relaxation-time approximation (7 pages)	L071901
Reghukrishnan Gangadharan and Victor Roy	
Shedding light on the intrinsic transversal momentum distributions of pions and kaons (7 pages)	L071902
Jian Chai and Shan Cheng	
Can the $X(1750)$ be a $\phi(1750)$? (3 pages)	L071903
Peter Lichard	

ARTICLES

Search for $\eta_c(2S) \rightarrow p\bar{p}K^+K^-$ and measurement of $\chi_{cJ} \rightarrow p\bar{p}K^+K^-$ in $\psi(3686)$ radiative decays (11 pages)	072001
M. Ablikim <i>et al.</i> (BESIII Collaboration)	
Learning broken symmetries with approximate invariance (8 pages)	072002
Seth Nabat, Aishik Ghosh, Edmund Witkowski, Gregor Kasieczka, and Daniel Whiteson	
Energy-scaling behavior of intrinsic transverse-momentum parameters in Drell-Yan simulation (23 pages)	072003
A. Hayrapetyan <i>et al.</i> (CMS Collaboration)	
Transforming a rare event search into a not-so-rare event search in real-time with deep learning-based object detection (26 pages)	072004
J. Schueler <i>et al.</i> (MIGDAL Collaboration)	
Search for very-short-baseline oscillations of reactor antineutrinos with the SoLid detector (8 pages)	072005
Y. Abreu <i>et al.</i> (SoLid Collaboration)	



(Continued)



2470-0010(20250401)111:7;1-N



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).

Search for charged Higgs bosons produced in top-quark decays or in association with top quarks and decaying via $H^\pm \rightarrow \tau^\pm \nu_\tau$ in 13 TeV pp collisions with the ATLAS detector (31 pages)	072006
G. Aad <i>et al.</i> (ATLAS Collaboration)	
Ionization yield in a methane-filled spherical proportional counter (11 pages)	072007
M. M. Arora <i>et al.</i> (NEWS-G Collaboration)	
Study of $\eta \rightarrow \pi^+ \pi^- l^+ l^-$ (13 pages)	072008
M. Ablikim <i>et al.</i> (BESIII Collaboration)	
Athermal phonon collection efficiency in diamond crystals for low mass dark matter detection (13 pages)	072009
I. Kim, N. A. Kurinsky, H. Kagan, S. T. P. Boyd, and G. B. Kim	
Center-of-momentum variables in charged-current single-pion–single-proton events (12 pages)	072010
Weijun Li	
Beehive haloscope for high-mass axion dark matter (23 pages)	072011
Matthew O. Withers and Chao-Lin Kuo	
First constraints on the coherent elastic scattering of reactor antineutrinos off xenon nuclei (13 pages)	072012
D. Yu. Akimov, I. S. Alexandrov, V. A. Belov, A. I. Bolozdynya, A. V. Etenko, A. V. Galavanov, Yu. V. Gusakov, A. V. Khromov, A. M. Kononov, V. N. Kornoukhov, A. G. Kovalenko, E. S. Kozlova, A. V. Kumpan, A. V. Lukyashin, A. V. Pinchuk, O. E. Razuvaeva, D. G. Rudik, A. V. Shakirov, G. E. Simakov, V. V. Sosnovtsev, and A. A. Vasin (RED-100 Collaboration)	
Tagging efficiency study of incoherent diffractive vector meson production at the second interaction region at the Electron-Ion Collider (9 pages)	072013
E. C. Aschenauer, A. Bazilevsky, A. Jentsch, J. Kim, A. Kiselev, B. S. Page, Z. Tu, T. Ullrich, and C. P. Wong	
Trilepton and tetra-lepton bound and resonant states: The QED counterpart of multi-quark states (15 pages)	073001
Yao Ma, Lu Meng, Liang-Zhen Wen, and Shi-Lin Zhu	
Analysis of NOvA and MicroBooNE charged-current inclusive neutrino measurements within the SuSav2 framework (13 pages)	073002
J. Gonzalez-Rosa, G. D. Megias, J. A. Caballero, and M. B. Barbaro	
Precision of the leptonic mixing angle θ_{23} and its implications for the flavor models (13 pages)	073003
P. T. Quyen, S. Cao, N. T. Hong Van, Ankur Nath, and T. V. Ngoc	
Isospin breaking corrections in 2π production in tau decays and e^+e^- annihilation: Consequences for the muon $g-2$ and conserved vector current tests (26 pages)	073004
Gabriel López Castro, Alejandro Miranda, and Pablo Roig	
Does the Z boson have a lighter cousin? (8 pages)	073005
Jeff Greensite	
Constraining low scale dark hypercharge symmetry at spallation, reactor, and dark matter direct detection experiments (24 pages)	073006
Anirban Majumdar, Dimitrios K. Papoulias, Hemant Prajapati, and Rahul Srivastava	
Lam-Tung relation breaking in Z boson production as a probe of standard model effective field theory effects (7 pages)	073007
Xu Li, Bin Yan, and C.-P. Yuan	
Anapole moment of neutrinos and radioactive sources near liquid xenon detectors (8 pages)	073008
Gonzalo Herrera and Patrick Huber	
Axionless strong CP problem solution: The spontaneous CP-violation case (6 pages)	073009
Rodolfo Ferro-Hernández, Stefano Morisi, and Eduardo Peinado	
Detecting interactions mediated by axions with a milligram-scale torsion pendulum (10 pages)	073010
Ling-Ling Yang, Hong-Ru Liu, Wen-Can Li, Tong Huang, Xing-da Su, Rui-Qi Liu, Ze-Bing Zhou, and Qing Li	
T , $\mathcal{P}$ -odd electron-nucleon interaction via a Higgs-boson exchange at the quark-gluon level (13 pages)	073011
D. V. Chubukov and I. A. Aleksandrov	
Topological susceptibility and axion properties in the presence of a strong magnetic field within the three-flavor NJL model (15 pages)	074001
J. P. Carlomagno, D. Gómez Dumm, and N. N. Scoccola	
Polarized dissociation and spin alignment of moving quarkonia in a quark-gluon plasma (19 pages)	074002
Zhishun Chen and Shu Lin	

(Continued)



Global parametrizations of $\pi\pi$ scattering with dispersive constraints: Beyond the S0 wave (37 pages)	074003
J. R. Peláez, P. Rabán, and J. Ruiz de Elvira	
In-medium electromagnetic form factors of pseudoscalar mesons from the quark model (16 pages)	074004
Ahmad Jafar Arifi, Parada T. P. Hutaeruk, and Kazuo Tsushima	
Perturbative RGE systematics in precision observables (30 pages)	074005
V. Bertone, G. Bozzi, and F. Hautmann	
Functional renormalization of QCD in 1 + 1 dimensions: Four-fermion interactions from quark-gluon dynamics (29 pages)	074006
Eric Oevermann, Adrian Koenigstein, and Stefan Floerchinger	
Chiral-odd generalized parton distributions in the large- N_c limit of QCD: Spin-flavor structure, polynomiality, and sum rules (28 pages)	074007
June-Young Kim and Christian Weiss	
Evolution of the transverse-momentum dependent gluon distribution at small x (32 pages)	074008
Paul Caucal and Edmond Iancu	
z_g distribution for heavy flavor jets in dense quark-gluon plasma (27 pages)	074009
Boris Blok and Chang Wu	
Strong coupling from hadronic τ -decay data including $\tau \rightarrow \pi^- \pi^0 \nu_\tau$ from Belle (29 pages)	074010
Diogo Boito, Aaron Eiben, Maarten Golterman, Kim Maltman, Lucas M. Mansur, and Santiago Peris	
Quasiparticle second-order dissipative hydrodynamics at finite chemical potential (30 pages)	074011
Asaad Daher, Leonardo Tinti, Amaresh Jaiswal, and Radoslaw Ryblewski	
Formation, dissociation, and regeneration of charmonia within microscopic Langevin simulations (12 pages)	074012
Naomi Oei, Nadja Krenz, Hendrik van Hees, Carsten Greiner, and Juan M. Torres-Rincon	
Chiral non-Abelian vortex molecules in dense QCD (15 pages)	074013
Sven Bjarke Gudnason and Muneto Nitta	
Charming case of $X(3872)$ and $\chi_{c1}(2P)$ (10 pages)	074014
Pietro Colangelo, Fulvia De Fazio, and Giuseppe Roselli	
Functional renormalization group study of a four-fermion model with CP violation (16 pages)	074015
Linlin Huang, Mamiya Kawaguchi, Yadikaer Maitiniyazi, Shinya Matsuzaki, Akio Tomiya, and Masatoshi Yamada	
Conformal mapping in matching quark correlation functions to parton distribution functions (6 pages)	074016
Jia-Lu Zhang	
Finite size effects on the transport coefficients of strongly interacting QCD matter (25 pages)	074017
Dhananjay Singh and Arvind Kumar	
Phenomenology of the semileptonic $\Sigma_b^{*0} \rightarrow \Sigma_c^+ \ell \bar{\nu}_\ell$ transition within QCD sum rules (20 pages)	074018
L. Khajouei and K. Azizi	
Quark-hadron duality and the determination of α_s from hadronic τ decay: Facts vs myths (30 pages)	074019
Diogo Boito, Maarten Golterman, Kim Maltman, and Santiago Peris	
Nuclear deformation effects in photoproduction of ρ mesons in ultraperipheral isobaric collisions (10 pages)	074020
Shuo Lin, Jin-Yu Hu, Hao-Jie Xu, Shi Pu, and Qun Wang	
't Hooft model in the temporal gauge (20 pages)	074021
Paul Hoyer	
Collins-Soper kernel in the QCD instanton vacuum (14 pages)	074022
Wei-Yang Liu, Ismail Zahed, and Yong Zhao	
Nucleon and singly heavy baryons from the QCD instanton vacuum (19 pages)	074023
Yongwoo Choi and Hyun-Chul Kim	
Nucleon tensor form factors at large N_c (22 pages)	074024
Nam-Yong Ghim, Ho-Yeon Won, June-Young Kim, and Hyun-Chul Kim	
Properties of the tensor state $bc\bar{b}\bar{c}$ (15 pages)	074025
S. S. Agaev, K. Azizi, and H. Sundu	
Toward constraining QCD phase transitions in neutron star interiors: Bayesian inference with a Tolman-Oppenheimer-Volkoff linear response analysis (17 pages)	074026
Ronghao Li (李荣浩), Sophia Han (韩君), Zidu Lin (林子都), Lingxiao Wang (王凌霄), Kai Zhou (周凯), and Shuzhe Shi (施舒哲)	

(Continued)



Role of the chiral anomaly in polarized deeply inelastic scattering. III. Wess-Zumino-Witten contributions and chiral Ward identities for finite quark mass (29 pages)	074027
Andrey Tarasov and Raju Venugopalan	
First-order CP phase transition in two-flavor QCD at $\theta = \pi$ under electromagnetic scale anomaly via a Nambu–Jona-Lasinio description (10 pages)	074028
Yuan Yuan Wang, Shinya Matsuzaki, Mamiya Kawaguchi, and Akio Tomiya	
 Interacting mesons as degrees of freedom in a chiral model (21 pages)	074029
Rajesh Kumar, Joaquin Grefa, Konstantin Maslov, Yuhan Wang, Arvind Kumar, Ralf Rapp, Claudia Ratti, and Veronica Dexheimer	
New tool to detect inhomogeneous chiral-symmetry breaking (7 pages)	074030
Theo F. Motta, Julian Bernhardt, Michael Buballa, and Christian S. Fischer	
Gravitational form factor D of charmonium from shear stress (9 pages)	074031
Tianyang Hu, Xianghui Cao, Siqi Xu, Yang Li, Xingbo Zhao, and James P. Vary	
Fate of Σ_c , Ξ'_c and Ω_c baryons at high temperature with chiral-symmetry restoration (21 pages)	074032
Daiki Suenaga and Makoto Oka	
Thermoelectric effects of an interacting hadron gas in the presence of an external magnetic field (16 pages)	074033
Kamaljeet Singh, Kshitish Kumar Pradhan, Dushmanta Sahu, and Raghunath Sahoo	
Timelike Compton scattering on a spin-0 target with kinematic twist-4 precision (19 pages)	074034
V. Martínez-Fernández, B. Pire, P. Sznajder, and J. Wagner	
Intrinsic charm and the $D^+ - D^-$ asymmetry produced in proton-proton collisions (11 pages)	074035
G. I. Lykasov, M. N. Sorokovikov, and S. J. Brodsky	
Impact of glasma on heavy flavor azimuthal correlations and spectra (25 pages)	074036
Dana Avramescu, Vincenzo Greco, Tuomas Lappi, Heikki Mäntysaari, and David Müller	
Kubo formula for spin hydrodynamics: Spin chemical potential as the leading order term in a gradient expansion (24 pages)	074037
Sourav Dey and Arpan Das	
Shedding light on the nature of the $P_{cs}(4459)$ pentaquark state (17 pages)	074038
Ulaş Özdem	
Monte Carlo simulation-based partial wave analysis of $\Xi_c^+ \rightarrow \Xi^- \pi^+ \pi^+$ decay (9 pages)	074039
S. X. Li, R. G. Ping, and C. P. Shen	
Triply heavy tetraquark states with different flavors (19 pages)	074040
Hui-Min Yang, Yao Ma, Wei-Lin Wu, and Shi-Lin Zhu	
Associated jet + electroweak gauge boson production in hadronic collisions at forward rapidities in the color-dipole S -matrix framework (13 pages)	074041
Yan B. Bandeira, Victor P. Gonçalves, and Wolfgang Schäfer	
$^3P_0$ model revisited (8 pages)	074042
R. Bruschini, P. González, and T. Tarutina	
P -wave charmonium contribution to hidden-charm states from a reanalysis of lattice QCD data (26 pages)	074043
Pan-Pan Shi, Miguel Albaladejo, Meng-Lin Du, Feng-Kun Guo, and Juan Nieves	
Gauge covariant neural network for quarks and gluons (15 pages)	074501
Yuki Nagai and Akio Tomiya	
Role of integration cycles in complex Langevin simulations (25 pages)	074502
Michael W. Hansen, Michael Mandl, Erhard Seiler, and Dénes Sexty	
Chiral and isospin breaking in the two-flavor Schwinger model (11 pages)	074503
D. Albandea and P. Hernández	
Hybrid spin-dependent and hybrid-quarkonium mixing potentials at order $(1/m_Q)^1$ from SU(3) lattice gauge theory (17 pages)	074504
Carolin Schlosser and Marc Wagner	
Power counting of the pion-dilaton effective field theory (12 pages)	074505
Maarten Golterman and Yigal Shamir	
Parton distribution function of a deuteronlike dibaryon system from lattice QCD (19 pages)	074506
Chen Chen, Yiqi Geng, Liuming Liu, Peng Sun, Yi-Bo Yang, Fei Yao, Jian-Hui Zhang, and Kuan Zhang (CLQCD Collaboration and Lattice Parton Collaboration)	

(Continued)



Quark density in lattice QC ₂ D at imaginary and real chemical potential (16 pages)	074507
A. M. Begun, V. G. Bornyakov, N. V. Gerasimeniuk, V. A. Goy, A. Nakamura, and R. N. Rogalyov	

PART B

Multigrid low-mode averaging (20 pages)	074508
Roman Gruber, Tim Harris, and Marina Krstić Marinković	
Polarized and unpolarized gluon PDFs: Generative machine learning applications for lattice QCD matrix elements at short distance and large momentum (24 pages)	074509
Talal Ahmed Chowdhury, Taku Izubuchi, Methun Kamruzzaman, Nikhil Karthik, Tanjib Khan, Tianbo Liu, Arpon Paul, Jakob Schoenleber, and Raza Sabbir Sufian	
Taste breaking in the minimally doubled Karsten-Wilczek action and its tree-level improvement (14 pages)	074510
S. Borsányi, S. Capitani, Z. Fodor, D. Godzieba, P. Parotto, R. A. Vig, and C. H. Wong	
Meson spectroscopy in the $Sp(4)$ gauge theory with three antisymmetric fermions (41 pages)	074511
Ed Bennett, Deog Ki Hong, Ho Hsiao, Jong-Wan Lee, C.-J. David Lin, Biagio Lucini, Maurizio Piai, and Davide Vadacchino	
Center vortices and localized Dirac modes in the deconfined phase of $(2 + 1)$ -dimensional lattice $\mathbb{Z}_2$ gauge theory (24 pages)	074512
György Baranka, Dénes Berta, and Matteo Giordano	
Chiral condensates and screening masses of neutral pseudoscalar mesons from lattice QCD at physical quark masses (14 pages)	074513
Heng-Tong Ding, Jin-Biao Gu, Sheng-Tai Li, and Rishabh Thakkar	
Bootstrap-determined p values in lattice QCD (24 pages)	074514
N. H. Christ, R. Eranki, and C. Kelly (RBC and UKQCD Collaborations)	
Efficient state preparation for the Schwinger model with a theta term (11 pages)	074515
Alexei Bazavov, Brandon Henke, Leon Hostetler, Dean Lee, Huey-Wen Lin, Giovanni Pederiva, and Andrea Shindler	
Loop-string-hadron approach to SU(3) lattice Yang-Mills theory: Hilbert space of a trivalent vertex (26 pages)	074516
Saurabh V. Kadam, Aahiri Naskar, Indrakshi Raychowdhury, and Jesse R. Stryker	
Scaling of stochastic normalizing flows in SU(3) lattice gauge theory (15 pages)	074517
Andrea Bulgarelli, Elia Cellini, and Alessandro Nada	
Long-lived sterile neutrino searches at future muon colliders (14 pages)	075001
Qi Bi, Jinhui Guo, Jia Liu, Yan Luo, and Xiao-Ping Wang	
Probing lepton number violation at same-sign lepton colliders (8 pages)	075002
Carlos Henrique de Lima, David McKeen, John N. Ng, Michael Shamma, and Douglas Tuckler	
Revisiting the two-zero texture Majorana neutrino mass matrix (9 pages)	075003
Wararat Treesukrat, Nopmanee Supanam, and Patipan Uttayarat	
Curtain lowers on directly detectable higgsino dark matter (17 pages)	075004
Stephen P. Martin	
New strategies for new physics search with $\Lambda_b \rightarrow \Lambda \nu \bar{\nu}$ decays (15 pages)	075005
Wolfgang Altmannshofer, Sri Aditya Gadam, and Kevin Toner	
Extra-dimensional axion patterns (20 pages)	075006
Arturo de Giorgi and Maria Ramos	
Connecting pseudo-Nambu-Goldstone dark matter with pseudo-Dirac neutrinos in a left-right symmetry model (9 pages)	075007
Sumit Biswas, Vishnu P. K., and Anil Thapa	
General signals for charged lepton flavor violating decays (20 pages)	075008
Spencer Chang and Thomas Driscoll	
Flavor constraints in a generational three-Higgs-doublet model (22 pages)	075009
Wolfgang Altmannshofer and Kevin Toner	
Fast multilabel classification of HEP constraints with deep learning (23 pages)	075010
Maien Binjonaïd	

(Continued)



Revisiting the LHC constraints on gauge-mediated supersymmetry breaking scenarios (20 pages)	075011
Kirtiman Ghosh, Katri Huitu, and Rameswar Sahu	
HEFT approach to investigate the muon $g-2$ anomaly at a muon collider (14 pages)	075012
Fabiola Fortuna, Juan Manuel Márquez, and Pablo Roig	
Constraining secluded and catalyzed-annihilation dark matter models with Fermi-LAT and Planck data (16 pages)	075013
Yu-Hang Su, Chengfeng Cai, and Hong-Hao Zhang	
Simulations of magnetic monopole collisions (14 pages)	075014
Maximilian Bachmaier, Gia Dvali, Josef Seitz, and Juan Sebastián Valbuena-Bermúdez	
Probing the couplings of an axionlike particle with leptons via three-lepton final state processes at future e^-p colliders (18 pages)	075015
Chong-Xing Yue, Xin-Yang Li, Mei-Shu-Yu Wang, and Yang-Yang Bu	
Baryogenesis from a Majorana fermion coupled to quarks (19 pages)	075016
Shrihari Gopalakrishna and Rakesh Tibrewala	
Jet substructure analysis for distinguishing left- and right-handed couplings of heavy neutrino in W' decay at the HL-LHC (21 pages)	075017
Songshaptak De, Atri Dey, and Tousik Samui	
Toward UV models of kinetic mixing and portal matter. VII. A light dark photon in the $3_c 3_L 1_A 1_B$ model (22 pages)	075018
Thomas G. Rizzo	
Neutrino-portal dark matter detection prospects at a future muon collider (13 pages)	075019
Jyotismita Adhikary, Kevin J. Kelly, Felix Kling, and Sebastian Trojanowski	
Gauge theories of neutrino masses and dark matter (15 pages)	075020
Hridoy Debnath and Pavel Fileviez Pérez	
Correlating $A \rightarrow \gamma\gamma$ with electric dipole moments in the two Higgs doublet model in light of the diphoton excesses at 95 GeV and 152 GeV (14 pages)	075021
Sumit Banik, Guglielmo Coloretti, Andreas Crivellin, and Howard E. Haber	
Highly excited electron cyclotron for QCD axion and dark-photon detection (38 pages)	075022
Xing Fan, Gerald Gabrielse, Peter W. Graham, Hari Krishnan Ramani, Samuel S. Y. Wong, and Yawen Xiao	
Scotogenic model with U(1) symmetry and a scalar dark matter (28 pages)	075023
Anjan Kumar Barik, Najimuddin Khan, and Santosh Kumar Rai	
Interplay and correlations between quark and lepton observables in modular symmetry models (25 pages)	075024
Gui-Jun Ding, Eligio Lisi, Antonio Marrone, and S. T. Petcov	
Implications of the first CONUS+ measurement of coherent elastic neutrino-nucleus scattering (19 pages)	075025
V. De Romeri, D. K. Papoulias, and G. Sanchez Garcia	
Higgs boson precision analysis of two-Higgs-doublet models: Full LHC run 1 and run 2 data (17 pages)	075026
Yongtae Heo, Jae Sik Lee, and Chan Beom Park	
C-parity, magnetic monopoles, and higher frequency gravitational waves (7 pages)	075027
Rinku Maji and Qaisar Shafi	
Nuclear spin metrology with nitrogen vacancy center in diamond for axion dark matter detection (21 pages)	075028
So Chigusa, Masashi Hazumi, Ernst David Herbschleb, Yuichiro Matsuzaki, Norikazu Mizuochi, and Kazunori Nakayama	
Joint explanation of the $B \rightarrow \pi K$ puzzle and the $B \rightarrow K \nu \bar{\nu}$ excess (18 pages)	075029
W. Altmannshofer and S. Roy	
Limits on Kaluza-Klein portal dark matter models (36 pages)	075030
R. Sekhar Chivukula, Joshua A. Gill, Kirtimaan A. Mohan, George Sanamyan, Dipan Sengupta, Elizabeth H. Simmons, and Xing Wang	
Heavy neutral leptons without prejudice (15 pages)	075031
Nicolás Bernal, Kuldeep Deka, and Marta Losada	
Right-handed neutrino production through first-generation leptoquarks (12 pages)	075032
Gokul Duraikandan, Rishabh Khanna, Tanumoy Mandal, Subhadip Mitra, and Rachit Sharma	
Dark matter in the high-scale seesaw leptogenesis paradigm (9 pages)	075033
Juan Herrero-Garcia, Giacomo Landini, and Tsutomu T. Yanagida	

(Continued)



Investigating two-loop effects for first-order electroweak phase transitions (26 pages)	075034
Lauri Niemi and Tuomas V. I. Tenkanen	
Analysis of q_{rec}^2 -distribution for $B \rightarrow KM_X$ and $B \rightarrow K^*M_X$ decays in a scalar-mediator dark-matter scenario (8 pages)	075035
Alexander Berezhnoy, Wolfgang Lucha, and Dmitri Melikhov	
Energy-momentum tensor in Φ^4 theory at one loop (17 pages)	076001
Brean Maynard	
Final-state rescattering mechanism of double-charm baryon decays: $\mathcal{B}_{cc} \rightarrow \mathcal{B}_c P$ (30 pages)	076002
Xiao-Hui Hu, Cai-Ping Jia, Ye Xing, and Fu-Sheng Yu	
Strong decay properties of P-wave single bottom baryons of the SU(3) flavor antitriplet $\bar{3}_F$ (16 pages)	076003
Yi-Jie Wang, Xuan Luo, Hua-Xing Chen, Er-Liang Cui, Wei-Han Tan, and Zhi-Yong Zhou	
Unifying simulation and inference with normalizing flows (13 pages)	076004
Haoxing Du, Claudius Krause, Vinicius Mikuni, Benjamin Nachman, Ian Pang, and David Shih	
Studying timelike proton form factors using vortex state $p\bar{p}$ annihilation (16 pages)	076005
Nikolai Korchagin	
Semileptonic $B_{(s)}$ meson decays to $D_0^*(2300)$, $D_{s0}^*(2317)$, $D_{s1}(2460)$, $D_{s1}(2536)$, $D_1(2420)$, and $D_1(2430)$ within the covariant light-front approach (16 pages)	076006
You-Ya Yang, Zhi-Qing Zhang, and Hao Yang	
Spin polarization of an expanding and rotating system (33 pages)	076007
Nora Weickgenannt and Jean-Paul Blaizot	
Next-to-soft threshold effects on Higgs boson production via bottom quark annihilation (31 pages)	076008
Goutam Das and Aparna Sankar	
Scalar resonance contributions in the $D_{s1}(2460)^+ \rightarrow D_s^+ \pi^+ \pi^-$ reaction (10 pages)	076009
Zhong-Yu Wang, Yu-Shuai Li, and Si-Qiang Luo	
Impact of resummation on the production and experimental bounds of scalar high-electric-charge objects (17 pages)	076010
Jean Alexandre, Nick E. Mavromatos, Vasiliki A. Mitsou, and Emanuela Musumeci	
Kinematic power corrections to deeply virtual Compton scattering to twist-six accuracy (14 pages)	076011
V. M. Braun, Yao Ji, and A. N. Manashov	
Shear and bulk viscous coefficients of a hot and chirally imbalanced quark matter using NJL model (17 pages)	076012
Snigdha Ghosh, Nilanjan Chaudhuri, Pradip Roy, and Sourav Sarkar	
Rare decay $B^+ \rightarrow K^+ \ell^+ \ell^- (\nu \bar{\nu})$ under the QCD sum rules approach (17 pages)	076013
Hai-Jiang Tian, Hai-Bing Fu, Tao Zhong, Ya-Xiong Wang, and Xing-Gang Wu	
Properties of Krylov state complexity in qubit dynamics (17 pages)	076014
Siddharth Seetharaman, Chetanya Singh, and Rejish Nath	
Photon production by chiral magnetic effect in the early stage of high-energy nuclear collisions (13 pages)	076015
Moran Jia	
Study of rare top quark decays into a jet plus a charged pseudoscalar meson (7 pages)	076016
Long-Shun Lu, Lei-Yi Li, and Cai-Dian Lü	
Vortex state properties in multiphoton scalar pair production (9 pages)	076017
Hong-Hao Fan, Cui-Wen Zhang, Suo Tang, and Bai-Song Xie	
Chiral symmetry restoration in QC ₂ D from an effective model using the functional renormalization group (8 pages)	076018
G. Fejős and D. Suenaga	
Field redefinitions in classical field theory with some quantum perspectives (19 pages)	076019
Juan Carlos Criado, Joerg Jaeckel, and Michael Spannowsky	
Hidden charm $\mathcal{P}_{cs}(4338)^0$ production in baryonic $B^- \rightarrow J/\psi \Lambda \bar{p}$ decay (7 pages)	076020
Yu-Kuo Hsiao, Shu-Ting Cai, and Yan-Li Wang	
Collinear parton dynamics beyond Dokshitzer-Gribov-Lipatov-Altarelli-Parisi framework (6 pages)	076021
Hao Chen, Max Jaarsma, Yibei Li, Ian Mould, Wouter J. Waalewijn, and Hua Xing Zhu	
Estimate of the S -wave D^*K scattering length in the isospin-0 channel from Belle and LHCb data (8 pages)	076022
N. N. Achasov and G. N. Shestakov	
CPT symmetry and its breaking in the chiral fermion formalism (16 pages)	076023
I. P-Castro, J. L. Díaz-Cruz, and A. Pérez-Lorenzana	

(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).

CONTENTS - *Continued*

PHYSICAL REVIEW D

THIRD SERIES, VOLUME 111, NUMBER 7

D1 APRIL 2025

Charm Silvers function at the EicC (8 pages)	076024
Senjie Zhu, Duxin Zheng, Lei Xia, and Yifei Zhang	
Analytic approach to the relaxation time approximation Boltzmann attractor (9 pages)	076025
Inês Aniceto, Jorge Noronha, and Michał Spaliński	
General one-loop generating function by integration-by-part relations (35 pages)	076026
Chang Hu, Bo Feng, Jiyuan Shen, and Yaobo Zhang	
Understanding the nature of the $\Delta(1600)$ resonance (28 pages)	076027
Liam Hockley, Curtis Abell, Derek Leinweber, and Anthony Thomas	
Anisotropic photon and dilepton yield in a thermalized quark-gluon plasma under spatial magnetic fluctuations (24 pages)	076028
Jorge David Castaño-Yepes and Enrique Muñoz	
Effects of subnucleonic fluctuations on the longitudinal structure of heavy-ion collisions (19 pages)	076029
Oscar Garcia-Montero, Sören Schlichting, and Jie Zhu	
Production and decay of the $X_0(2900)$ state with different interpretations (21 pages)	076030
Zi-Yan Yang, Qian Wang, and Wei Chen	
No gauge cancellation at high energy in the five-vector R_ξ gauge (15 pages)	076031
Jaehoon Jeong	

ERRATA

Erratum: Spacetime evolution of lepton number densities and wave-packet-like effects for neutrino flavor and chiral oscillations in quantum field theory [Phys. Rev. D 108 , 056009 (2023)] (1 pages)	079901
Apriadi Salim Adam, Nicholas J. Benoit, Yuta Kawamura, Yamato Matsuo, Takuya Morozumi, Yusuke Shimizu, and Naoya Toyota	
Erratum: SuSAv2 model for inelastic neutrino-nucleus scattering [Phys. Rev. D 105 , 093009 (2022)] (6 pages)	079902
J. Gonzalez-Rosa, G. D. Megias, J. A. Caballero, and M. B. Barbaro	
Erratum: Superscaling in the resonance region for neutrino-nucleus scattering: The SuSAv2 dynamical coupled-channels model [Phys. Rev. D 108 , 113008 (2023)] (12 pages)	079903
J. Gonzalez-Rosa, G. D. Megias, J. A. Caballero, M. B. Barbaro, and J. M. Franco-Patino	
Erratum: Asymptotically conformal color-flavor-locked quark matter within a nonlocal chiral quark model [Phys. Rev. D 111 , 034004 (2025)] (1 pages)	079904
Oleksii Ivanytskyi	

