

PHYSICAL REVIEW DTM

PARTICLES, FIELDS, GRAVITATION, AND COSMOLOGY

Articles Published in DECEMBER 2013

D1

Published by
AMERICAN PHYSICAL SOCIETYTM

Volume 88

Third Series

Number 11

RAPID COMMUNICATIONS

Optical cavity limits on higher order Lorentz violation (5 pages)	111101(R)
Yuta Michimura, Matthew Mewes, Nobuyuki Matsumoto, Yoichi Aso, and Masaki Ando	
Lower bound on neutrino mass and possible CP violation in neutrino oscillations (6 pages)	111301(R)
Rohit Verma	
Rapidity evolution of Wilson lines at the next-to-leading order (6 pages)	111501(R)
Ian Balitsky and Giovanni A. Chirilli	

ARTICLES

Search for $\eta_c(2S)h_c \rightarrow p\bar{p}$ decays and measurements of the $\chi_{cJ} \rightarrow p\bar{p}$ branching fractions (8 pages)	112001
M. Ablikim <i>et al.</i> (BESIII Collaboration)	
Measurement of the asymmetry in angular distributions of leptons produced in dilepton $t\bar{t}$ final states in $p\bar{p}$ collisions at $\sqrt{s} = 1.96$ TeV (12 pages)	112002
V. M. Abazov <i>et al.</i> (D0 Collaboration)	
Search for long-lived stopped R -hadrons decaying out of time with pp collisions using the ATLAS detector (30 pages)	112003
G. Aad <i>et al.</i> (ATLAS Collaboration)	
Cryogenic resonant microwave cavity searches for hidden sector photons (5 pages)	112004
Stephen R. Parker, John G. Hartnett, Rhys G. Povey, and Michael E. Tobar	
Upper limit on the flux of photons with energies above 10^{19} eV using the Telescope Array surface detector (7 pages) ...	112005
T. Abu-Zayyad <i>et al.</i> (Telescope Array Collaboration)	
Search for charginos nearly mass degenerate with the lightest neutralino based on a disappearing-track signature in pp collisions at $\sqrt{s} = 8$ TeV with the ATLAS detector (23 pages)	112006
G. Aad <i>et al.</i> (ATLAS Collaboration)	
Observation of the decay $\psi(3686) \rightarrow \Lambda\bar{\Sigma}^{\pm}\pi^{\mp} + \text{c.c.}$ (9 pages)	112007
M. Ablikim <i>et al.</i> (BESIII Collaboration)	
Probing the origin of cosmic rays with extremely high energy neutrinos using the IceCube Observatory (15 pages)	112008
M. G. Aartsen <i>et al.</i> (IceCube Collaboration)	
Rapidity distributions in exclusive $Z + \text{jet}$ and $\gamma + \text{jet}$ events in pp collisions at $\sqrt{s} = 7$ TeV (17 pages)	112009
S. Chatrchyan <i>et al.</i> (CMS Collaboration)	
Inverse seesaw neutrino signatures at the LHC and ILC (13 pages)	113001
Arindam Das and Nobuchika Okada	
Flavor-changing neutral currents in the minimal 3-3-1 model revisited (15 pages)	113002
A. C. Machado, J. C. Montero, and V. Pleitez	
Supersimple analysis of $e^-e^+ \rightarrow W^-W^+$ at high energy (15 pages)	113003
G. J. Gounaris and F. M. Renard	



Influence of a keV sterile neutrino on neutrinoless double beta decay: How things changed in recent years (12 pages) Alexander Merle and Viviana Niro	113004
Massive gauge boson pair production at the LHC: A next-to-leading order story (27 pages) Julien Baglio, Le Duc Ninh, and Marcus M. Weber	113005
Sensitivity of medium-baseline reactor neutrino mass-hierarchy experiments to nonstandard interactions (12 pages) Amir N. Khan, Douglas W. McKay, and F. Tahir	113006
Neutrino-nucleus quasi-elastic and 2p2h interactions up to 10 GeV (10 pages) R. Gran, J. Nieves, F. Sanchez, and M. J. Vacas	113007
Flavored searches for type-III seesaw mechanism at the LHC (6 pages) J. A. Aguilar-Saavedra, P. M. Boavida, and F. R. Joaquim	113008
Comparative study of the production of scalar and tensor mesons in e^+e^- collisions (6 pages) N. N. Achasov, A. I. Goncharenko, A. V. Kiselev, and E. V. Rogozina	114001
$t\bar{t}$ + large missing energy from top-quark partners: A comprehensive study at next-to-leading order QCD (12 pages) Radja Boughezal and Markus Schulze	114002
Analysis of strong decays of the charmed mesons $D_J(2580)$, $D_J^*(2650)$, $D_J(2740)$, $D_J^*(2760)$, $D_J(3000)$, $D_J^*(3000)$ (10 pages) Zhi-Gang Wang	114003
Nonlinear effects and the behavior of total hadronic and photonic cross sections (9 pages) A. V. Giannini and F. O. Durães	114004
Boosted $hh \rightarrow b\bar{b}b\bar{b}$: A new topology in searches for TeV-scale resonances at the LHC (5 pages) Ben Cooper, Nikos Konstantinidis, Luke Lambourne, and David Wardrope	114005
Measurement of the decays $B_s^0 \rightarrow J/\psi\phi(1020)$, $B_s^0 \rightarrow J/\psi f_2'(1525)$ and $B_s^0 \rightarrow J/\psi K^+K^-$ at Belle (8 pages) F. Thorne <i>et al.</i> (Belle Collaboration)	114006
Revisiting the spectrum of baryonium in heavy baryon chiral perturbation theory (12 pages) Yue-De Chen, Cong-Feng Qiao, Peng-Nian Shen, and Zhuo-Quan Zeng	114007
Coupled-channel analysis of the possible $D^{(*)}D^{(*)}$, $\bar{B}^{(*)}\bar{B}^{(*)}$ and $D^{(*)}\bar{B}^{(*)}$ molecular states (20 pages) Ning Li, Zhi-Feng Sun, Xiang Liu, and Shi-Lin Zhu	114008
Charged charmoniumlike state $Z_c(3900)^\pm$ via meson photoproduction (8 pages) Qing-Yong Lin, Xiang Liu, and Hu-Shan Xu	114009
Sudakov double logarithms resummation in hard processes in the small- x saturation formalism (38 pages) A. H. Mueller, Bo-Wen Xiao, and Feng Yuan	114010
Limits on strong flavor changing neutral current top couplings at the LHC (6 pages) Renato Guedes, Rui Santos, and Miguel Won	114011
Transverse momentum dependent evolution: Matching semi-inclusive deep inelastic scattering processes to Drell-Yan and W/Z boson production (31 pages) Peng Sun and Feng Yuan	114012
Polyakov–Nambu–Jona-Lasinio phase diagrams and quarkyonic phase from order parameters (12 pages) M. Dutra, O. Lourenço, A. Delfino, T. Frederico, and M. Malheiro	114013
Branching fractions and direct CP violation in charmless three-body decays of B mesons (24 pages) Hai-Yang Cheng and Chun-Khiang Chua	114014
New electron beam-dump experiments to search for MeV to few-GeV dark matter (24 pages) Eder Izaguirre, Gordan Krnjaic, Philip Schuster, and Natalia Toro	114015
Role of vector and pseudoscalar mesons in understanding $1/2^- N^*$ and Δ resonances (11 pages) K. P. Khemchandani, A. Martínez Torres, H. Nagahiro, and A. Hosaka	114016
Transverse-momentum resummation for gauge boson pair production at the hadron collider (12 pages) Yan Wang, Chong Sheng Li, Ze Long Liu, Ding Yu Shao, and Hai Tao Li	114017
Polarization effects in the cascade decay $\Lambda_b \rightarrow \Lambda(\rightarrow p\pi^-) + J/\psi(\rightarrow \ell^+\ell^-)$ in the covariant confined quark model (14 pages) Thomas Gutsche, Mikhail A. Ivanov, Jürgen G. Körner, Valery E. Lyubovitskij, and Pietro Santorelli	114018
Discussions on the crossover property within the Nambu–Jona-Lasinio model (6 pages) Yi-lun Du, Zhu-fang Cui, Yong-hui Xia, and Hong-shi Zong	114019
Single inclusive particle production at high energy from HERA data to proton-nucleus collisions (13 pages) T. Lappi and H. Mäntysaari	114020

Nucleon form factors and distribution amplitudes in QCD (26 pages)	114021
I. V. Anikin, V. M. Braun, and N. Offen	
KK MC 4.22: Coherent exclusive exponentiation of electroweak corrections for $f\bar{f} \rightarrow f'\bar{f}'$ at the LHC and muon colliders (14 pages)	114022
S. Jadach, B. F. Ward, and Z. Was	
Effective theory approach to new physics in $b \rightarrow u$ and $b \rightarrow c$ leptonic and semileptonic decays (17 pages)	114023
Rupak Dutta, Anupama Bhol, and Anjan K. Giri	
Study of $\eta K\bar{K}$ and $\eta' K\bar{K}$ with the fixed center approximation to Faddeev equations (10 pages)	114024
Weihong Liang, C. W. Xiao, and E. Oset	
Prospects for charged current deep-inelastic scattering off polarized nucleons at a future electron-ion collider (12 pages)	114025
Elke C. Aschenauer, Thomas Burton, Marco Stratmann, Till Martini, and Hubert Spiesberger	
LHC and Tevatron constraints on a W' model interpretation of the top quark forward-backward asymmetry (13 pages)	114026
Edmond L. Berger, Zack Sullivan, and Hao Zhang	
Proton-air collisions in a model of soft interactions at high energies (10 pages)	114027
E. Gotsman, E. Levin, and U. Maor	
Dimuon production from in-medium rho decays from QCD sum rules (5 pages)	114028
Alejandro Ayala, C. A. Dominguez, Luis Alberto Hernández, M. Loewe, and Ana Julia Mizher	
Spin polarized photons and dileptons from axially charged plasma (13 pages)	114029
Kiminad A. Mamo and Ho-Ung Yee	
Ghost sector and geometry in minimal Landau gauge: Further constraining the infinite-volume limit (22 pages)	114501
Attilio Cucchieri and Tereza Mendes	
Transverse force on quarks in deep-inelastic scattering (5 pages)	114502
Matthias Burkardt	
Chiral behavior of vector meson self-energies (18 pages)	114503
Peter C. Bruns, Maximilian Emmerich, Ludwig Greil, and Andreas Schäfer	
Color screening potential at finite density in two-flavor lattice QCD with Wilson fermions (15 pages)	114504
Junichi Takahashi, Keitaro Nagata, Takuya Saito, Atsushi Nakamura, Takahiro Sasaki, Hiroaki Kouno, and Masanobu Yahiro	
Center vortices and chiral symmetry breaking in $SU(2)$ lattice gauge theory (19 pages)	114505
Roman Höllwieser, Thomas Schweigler, Manfred Faber, and Urs M. Heller	
Note on Rome-Southampton renormalization with smeared gauge fields (13 pages)	114506
R. Arthur, P. A. Boyle, S. Hashimoto, and R. Hudspith	
Two-nucleon systems in a finite volume. II. 3S_1 - 3D_1 coupled channels and the deuteron (22 pages)	114507
Raúl A. Briceño, Zohreh Davoudi, Thomas C. Luu, and Martin J. Savage	
Tests of hadronic vacuum polarization fits for the muon anomalous magnetic moment (10 pages)	114508
Maarten Golterman, Kim Maltman, and Santiago Peris	
Dynamical gauge symmetry breaking in strongly coupled lattice theories (11 pages)	114510
Simon Catterall and Aarti Veemala	
$B_{s,d}^0 \rightarrow \mu\bar{\mu}$ and $B \rightarrow X_s\gamma$ in the R -parity violating MSSM (14 pages)	115001
H. K. Dreiner, K. Nickel, and F. Staub	
Resonant to broadband searches for cold dark matter consisting of weakly interacting slim particles (11 pages)	115002
Joerg Jaeckel and Javier Redondo	
Scrutinizing the 125 GeV Higgs boson in two Higgs doublet models at the LHC, ILC, and Muon Collider (17 pages)	115003
Vernon Barger, Lisa L. Everett, Heather E. Logan, and Gabe Shaughnessy	
Singlet dark matter in a type II two Higgs doublet model (10 pages)	115004
Yi Cai and Tong Li	
Froggatt-Nielsen models with a residual \mathbb{Z}_4^R symmetry (15 pages)	115005
Herbi K. Dreiner, Toby Opferkuch, and Christoph Luhn	
Charged Higgs production in association with W^\pm at large hadron colliders (15 pages)	115006
Guo-Li Liu, Fei Wang, and Shuo Yang	
CP phase from twisted Higgs vacuum expectation value in extra dimension (11 pages)	115007
Yukihiro Fujimoto, Kenji Nishiwaki, and Makoto Sakamoto	

CONTENTS - *Continued*

PHYSICAL REVIEW D

THIRD SERIES, VOLUME 88, NUMBER 11

D1 DECEMBER 2013

Framework for baryonic R -parity violation in grand unified theories (15 pages) Luca Di Luzio, Marco Nardecchia, and Andrea Romanino	115008
B and L at the supersymmetry scale, dark matter, and R -parity violation (6 pages) Jonathan M. Arnold, Pavel Fileviez Pérez, Bartosz Fornal, and Sogee Spinner	115009
Electroweakinos in the light of the Higgs boson (27 pages) Tao Han, Sanjay Padhi, and Shufang Su	115010
Temperature and chemical potential dependence of the gluon condensate: A holographic study (9 pages) P. Colangelo, F. Giannuzzi, S. Nicotri, and F. Zuo	115011
Higgs singlet extension parameter space in the light of the LHC discovery (17 pages) Giovanni Marco Pruna and Tania Robens	115012
Boosted dibosons from mixed heavy top squarks (5 pages) Diptimoy Ghosh	115013
Signatures of dark matter scattering inelastically off nuclei (12 pages) L. Baudis, G. Kessler, P. Klos, R. F. Lang, J. Menéndez, S. Reichard, and A. Schwenk	115014
Measuring the mass of dark matter at the LHC (6 pages) Andrew C. Kobach	116001
J/ψ in high-multiplicity pp collisions: Lessons from pA collisions (6 pages) B. Z. Kopeliovich, H. J. Pirner, I. K. Potashnikova, K. Reygers, and Iván Schmidt	116002
Constraints on unparticles from $B_s \rightarrow \mu^+ \mu^-$ (5 pages) Jong-Phil Lee	116003
Yukawaon model with anomaly free set of quarks and leptons in a $U(3)$ family symmetry (11 pages) Yoshio Koide and Hiroyuki Nishiura	116004
Direct detection of classically undetectable dark matter through quantum decoherence (12 pages) C. Jess Riedel	116005
Resonances from quiver theories at the LHC (9 pages) Gustavo Burdman, Nayara Fonseca, and Gabriela L. Lichtenstein	116006
Complex Langevin dynamics for chiral random matrix theory (12 pages) A. Mollgaard and K. Splittorff	116007
Anomaly-free $U(1)$ gauge symmetries in neutrino seesaw flavor models (11 pages) Luís M. Cebola, David Emmanuel-Costa, and Ricardo González Felipe	116008
Bounds on dark matter interactions with electroweak gauge bosons (23 pages) R. C. Cotta, J. L. Hewett, M.-P. Le, and T. G. Rizzo	116009
Critical exponents in quantum Einstein gravity (6 pages) S. Nagy, B. Fazekas, L. Juhász, and K. Sailer	116010

BRIEF REPORTS

Constraints on millicharged particles from Planck data (5 pages) A. D. Dolgov, S. L. Dubovsky, G. I. Rubtsov, and I. I. Tkachev	117701
Unified framework for matter, dark matter, and radiative neutrino mass (3 pages) Ernest Ma	117702

ERRATA

Erratum: Three-loop radiative-recoil corrections to hyperfine splitting generated by one-loop fermion factors [Phys. Rev. D 70 , 073005 (2004)] (1 pages) Michael I. Eides, Howard Grotch, and Valery A. Shelyuto	119901(E)
---	-----------

(Continued)

Publisher's Note: Dark sector mass relations from renormalization group focusing [Phys. Rev. D **88**, 095009 (2013)] (*1 pages*) 119902(E)
John Kearney and Aaron Pierce

Erratum: Yukawa independent constraints for two-Higgs-doublet models with a 125 GeV Higgs boson [Phys. Rev. D **88**,
055027 (2013)] (*1 pages*) 119903(E)
Bogumiła Świeżewska