PHYSICAL REVIEW D

For editorial and subscription correspondence, please see inside front cover
(ISSN: 0556-2821)

PERIODICALS
Postmaster send address changes to:
American Institute of Physics
Suite 1NO1
2 Huntington Quadrangle
Melville, NY 11747-4502

THIRD SERIES, VOLUME 68, NUMBER 5 *CONTENTS* **D1 SEPTEMBER 2003**

RAPID COMMUNICATIONS

Measurement of branching fraction ratios and CP asymmetries in $B^{\pm}\to D_{CP}K^{\pm}$ *(6 pages)* . . . . . 051101(R)
S. K. Swain *et al.* (Belle Collaboration)
A mechanism for the T-odd pion fragmentation function *(5 pages)* . . . . . 051501(R)
Leonard P. Gamberg, Gary R. Goldstein, and Karo A. Oganessyan
Gaugino-induced quark and lepton masses in a truly minimal left-right model *(4 pages)* . . . . . 051701(R)
J.-M. Frère and Ernest Ma

ARTICLES

Production of π^0 and η mesons at large transverse momenta in pp and pBe interactions at 530 and 800 GeV/c *(23 pages)* 052001
L. Apanasevich *et al.* (Fermilab E706 Collaboration)
Measurements of charmless hadronic two-body B meson decays and the ratio $\mathcal{B}(B\to DK)/\mathcal{B}(B\to D\pi)$ *(12 pages)* 052002
A. Bornheim *et al.*
Partial wave analyses of $J/\psi\to\gamma K^+K^-$ and $\gamma K_S^0K_S^0$ *(7 pages)* 052003
J. Z. Bai *et al.* (BES Collaboration)
Search for resonance decays to lepton+jet at DESY HERA and limits on leptoquarks *(15 pages)* 052004
S. Chekanov *et al.* (ZEUS Collaboration)
Observations on muon multiplicity distribution with the GRAPES-2 experiment at Ooty for studies on the mass composition of cosmic rays at PeV energies *(12 pages)* 052005
S. K. Gupta, N. V. Gopalakrishnan, A. V. John, D. K. Mohanty, S. D. Morris, K. C. Ravindran, K. Sivaprasad, B. V. Sreekantan, R. Srivatsan, and S. C. Tonwar
Study of the process $e^+e^-\to\pi^+\pi^-\pi^0$ in the energy region $\sqrt{s}$ below 0.98 GeV *(20 pages)* 052006
M. N. Achasov, K. I. Beloborodov, A. V. Berdyugin, A. G. Bogdanchikov, A. V. Bozhenok, A. D. Bukin, D. A. Bukin, T. V. Dimova, V. P. Druzhinin, V. B. Golubev, I. A. Koop, A. A. Korol, S. V. Koshuba, A. P. Lysenko, E. V. Pakhtusova, S. I. Serednyakov, V. V. Shary, Yu. M. Shatunov, Z. K. Silagadze, A. N. Skrinsky, A. A. Valishev, and A. V. Vasiljev
Solution to the Centauro puzzle *(5 pages)* 052007
V. Kopenkin, Y. Fujimoto, and T. Sinzi
Measurement of $\tan\beta$ in associated $tH^{\pm}$ production in $\gamma\gamma$ collisions *(7 pages)* 053001
M. A. Doncheski, Stephen Godfrey, and Shouhua Zhu
Vanishing effective mass of neutrinoless double beta decay? *(5 pages)* 053002
Zhi-zhong Xing
Can the two-Higgs-doublet model survive the constraint from the muon anomalous magnetic moment, as suggested? *(13 pages)* 053003
Kingman Cheung and Otto C. W. Kong

Copyright 2003 by The American Physical Society

(Continued)

0556-2821(20030901)68:5;1-U

PHYSICAL REVIEW D **THIRD SERIES, VOLUME 68, NUMBER 5** **D1 SEPTEMBER 2003**

Bosonic corrections to Δr at the two-loop level *(21 pages)* 053004
M. Awramik, M. Czakon, A. Onishchenko, and O. Veretin
Effect of supersymmetric phases on lepton dipole moments and rare lepton decays *(8 pages)* 053005
A. Bartl, W. Majerotto, W. Porod, and D. Wyler
Escape from washing out of baryon number in a two-zero-texture general Zee model compatible with the large mixing angle MSW solution *(12 pages)* 053006
K. Hasegawa, C. S. Lim, and K. Ogure
Status of the CPT violating interpretations of the LSND signal *(9 pages)* 053007
M. C. Gonzalez-Garcia, M. Maltoni, and T. Schwetz
Secondary antiproton flux induced by cosmic ray interactions with the atmosphere *(10 pages)* 053008
C. Y. Huang, L. Derome, and M. Buénerd
Secondary proton flux induced by cosmic ray interactions with the atmosphere *(7 pages)* 053009
B. Baret, L. Derome, C. Y. Huang, and M. Buénerd
Neutrino processes in the K^0 condensed phase of color flavor locked quark matter *(10 pages)* 053010
Sanjay Reddy, Mariusz Sadzikowski, and Motoi Tachibana
Axial-vector–vector amplitude and neutrino effective charge in a magnetized medium *(13 pages)* 053011
Kaushik Bhattacharya and Avijit K. Ganguly
Unintegrated parton distributions of pions and nucleons from the CCFM equations in the single-loop approximation *(14 pages)* 054001
Agnieszka Gawron, Jan Kwieciński, and Wojciech Broniowski
Detector resolution effects on hadronic mass moments in $B \to X \ell \nu$ *(6 pages)* 054002
Christian W. Bauer and Benjamin Grinstein
Phenomenological analysis of charmless decays $B_s \to PP, PV$ with QCD factorization *(23 pages)* 054003
Junfeng Sun, Guohuai Zhu, and Dongsheng Du
Phenomenology of Lorentz-conserving noncommutative QED *(8 pages)* 054004
Justin M. Conroy, Herry J. Kwee, and Vahagn Nazaryan
Enhancement and suppression of the neutrino-nucleon total cross section at ultrahigh energies *(7 pages)* 054005
Jamal Jalilian-Marian
Implications of a DK molecule at 2.32 GeV *(5 pages)* 054006
T. Barnes, F. E. Close, and H. J. Lipkin
Quark spin coupling in baryons reexamined *(4 pages)* 054007
J. Chizma and G. Karl
QCD saturation and photoproduction on proton and nuclei targets *(8 pages)* 054008
J. Bartels, E. Gotsman, E. Levin, M. Lublinsky, and U. Maor
Saturation and parton level Cronin effect: Enhancement versus suppression of gluon production in p-A and A-A collisions *(9 pages)* 054009
Rudolf Baier, Alex Kovner, and Urs Achim Wiedemann
Measuring the relative strong phase in $D^0 \to K^{*+} K^-$ and $D^0 \to K^{*-} K^+$ decays *(7 pages)* 054010
Jonathan L. Rosner and Denis A. Suprun
Symmetry restoration of the soft pion corrections for the light sea quark distributions in the small x region *(11 pages)* 054011
Susumu Koretune
Accounting for slow J/ψ from B decay *(4 pages)* 054012
Chun-Khiang Chua, Wei-Shu Hou, and Gwo-Guang Wong
QCD condensates for the light quark $V-A$ correlator *(23 pages)* 054013
Vincenzo Cirigliano, Eugene Golowich, and Kim Maltman
Strong decays of strange quarkonia *(43 pages)* 054014
T. Barnes, N. Black, and P. R. Page

(Continued)

PHYSICAL REVIEW D **THIRD SERIES, VOLUME 68, NUMBER 5** **D1 SEPTEMBER 2003**

Antikaon-kaon condensate in color-flavor locked matter and its implication for quark-hadron continuity *(6 pages)* 054015
Xiao-Bing Zhang, Yan-An Luo, and Xue-Qian Li
Lepton polarization correlations in $B \to K^* \tau^- \tau^+$ *(13 pages)* 054016
S. Rai Choudhury, Naveen Gaur, A. S. Cornell, and G. C. Joshi
Pressure of QCD at finite temperatures and chemical potentials *(26 pages)* 054017
A. Vuorinen
Determining γ using $B^{\pm} \to DK^{\pm}$ with multibody D decays *(9 pages)* 054018
Anjan Giri, Yuval Grossman, Abner Soffer, and Jure Zupan
Supersymmetric effects in top quark decay into polarized W boson *(13 pages)* 054019
Junjie Cao, Robert J. Oakes, Fei Wang, and Jin Min Yang
Analysis of the $\pi \to e \nu \gamma$ experimental data *(5 pages)* 054020
A. A. Poblaguev
Expectation values of four-quark operators in the nucleon *(19 pages)* 054021
E. G. Drukarev, M. G. Ryskin, V. A. Sadovnikova, V. E. Lyubovitskij, Th. Gutsche, and Amand Faessler
Reduction of the QCD string to a time component vector potential *(10 pages)* 054022
Theodore J. Allen and M. G. Olsson
Possibility of a large electroweak penguin contribution in $B \to K \pi$ modes *(7 pages)* 054023
Tadashi Yoshikawa
Chiral multiplets of heavy-light mesons *(11 pages)* 054024
William A. Bardeen, Estia J. Eichten, and Christopher T. Hill
Target mass effects in polarized virtual photon structure functions *(13 pages)* 054025
Hideshi Baba, Ken Sasaki, and Tsuneo Uematsu
Radiative scalar meson decay in the light-front quark model *(11 pages)* 054026
Martin A. DeWitt, Ho-Meoyng Choi, and Chueng-Ryong Ji
Invisible Higgs boson decay into massive neutrinos of fourth generation *(4 pages)* 054027
K. Belotsky, D. Fargion, M. Khlopov, R. Konoplich, and K. Shibaev
Lattice calculation of vector meson couplings to the vector and tensor currents using chirally improved fermions *(6 pages)* 054501
V. M. Braun, T. Burch, C. Gattringer, M. Göckeler, G. Lacagnina, S. Schaefer, and A. Schäfer (Bern-Graz-Regensburg Collaboration)
Light hadron spectroscopy with two flavors of $O(a)$-improved dynamical quarks *(44 pages)* 054502
S. Aoki, R. Burkhalter, M. Fukugita, S. Hashimoto, K.-I. Ishikawa, N. Ishizuka, Y. Iwasaki, K. Kanaya, T. Kaneko, Y. Kuramashi, M. Okawa, T. Onogi, N. Tsutsui, A. Ukawa, N. Yamada, and T. Yoshié (JLQCD Collaboration)
Abelian representation for the non-Abelian Wilson loop and the non-Abelian Stokes theorem on the lattice *(7 pages)* 054503
M. A. Zubkov
Impossibility of spontaneously breaking local symmetries and the sign problem *(7 pages)* 054504
K. Splittorff
Unquenched QCD with light quarks *(11 pages)* 054505
A. Duncan, E. Eichten, and J. Yoo
Spin-3/2 nucleon and Δ baryons in lattice QCD *(8 pages)* 054506
J. M. Zanotti, D. B. Leinweber, A. G. Williams, J. B. Zhang, W. Melnitchouk, and S. Choe (CSSM Lattice Collaboration)
Pseudo Goldstone spectrum of 2-color QCD at finite density *(13 pages)* 054507
J. B. Kogut, D. Toublan, and D. K. Sinclair
Chiral perturbation theory with Wilson-type fermions including a^2 effects: $N_f = 2$ degenerate case *(10 pages)* 054508
Sinya Aoki

(Continued)

PHYSICAL REVIEW D **THIRD SERIES, VOLUME 68, NUMBER 5** **D1 SEPTEMBER 2003**

Nucleon axial charge from quenched lattice QCD with domain wall fermions *(16 pages)* 054509
S. Sasaki, K. Orginos, S. Ohta, and T. Blum (RIKEN-BNL-Columbia-KEK Collaboration)
Perturbative matching of staggered four-fermion operators with hypercubic fat links *(26 pages)* 054510
Weonjong Lee and Stephen Sharpe
Sliding singlet mechanism reexamined *(7 pages)* 055001
Nobuhiro Maekawa and Toshifumi Yamashita
Bulk scalar stabilization of the radion without metric back reaction in the Randall-Sundrum model *(10 pages)* 055002
Bohdan Grzadkowski and John F. Gunion
Neutral Higgs boson masses of the MSSM at the one-loop level in an explicit *CP* violation scenario *(14 pages)* 055003
S. W. Ham, S. K. Oh, E. J. Yoo, C. M. Kim, and D. Son
Supernovas and light neutralinos: SN 1987A bounds on supersymmetry reexamined *(17 pages)* 055004
H. K. Dreiner, C. Hanhart, U. Langenfeld, and D. R. Phillips
Dileptons from hot heavy static photons *(10 pages)* 056001
P. Aurenche, M. E. Carrington, and N. Marchal
Magnetic moment of the ρ meson in QCD light cone sum rules *(5 pages)* 056002
T. M. Aliev, İ Kanık, and M. Savcı
Compatibility of quark and resonant picture excited baryon multiplets in the $1/N_c$ expansion of QCD *(15 pages)* 056003
Thomas D. Cohen and Richard F. Lebed
R-parity violation in a supersymmetric GUT model and radiative neutrino masses *(14 pages)* 056004
Yoshio Koide and Joe Sato
Renormalization of relativistic baryon chiral perturbation theory and power counting *(13 pages)* 056005
T. Fuchs, J. Gegelia, G. Japaridze, and S. Scherer
Lepton flavor violation and neutrino mixings in a 3×2 seesaw model *(10 pages)* 056006
Bhaskar Dutta and R. N. Mohapatra
Democratic (s)fermions and lepton flavor violation *(12 pages)* 056007
K. Hamaguchi, Mitsuru Kakizaki, and Masahiro Yamaguchi
Novel features in exclusive vector-meson production *(6 pages)* 056008
M. A. Perfilov, S. M. Troshin, and N. E. Tyurin

BRIEF REPORTS

Addendum to ''One loop calculation of the renormalized anisotropy for improved anisotropic gluon actions on a lattice'': Contribution of $O(\alpha)$ radiative corrections to the renormalized anisotropy and application to general tadpole improvement schemes *(3 pages)* 057501
I. T. Drummond, A. Hart, R. R. Horgan, and L. C. Storoni
Majorana neutrino, the size of extra dimensions, and neutrinoless double beta decay *(4 pages)* 057901
Marek Góźdz and Wieslaw A. Kaminski

ERRATA

Erratum: Lepton flavor violation in tau decays [Phys. Rev. D **66**, 034008 (2002)] *(2 pages)* . . . . . 059901(E)
G. Cvetič, C. Dib, C. S. Kim, and J. D. Kim

Cumulative Author Index i