

PHYSICAL REVIEW D

For editorial and subscription correspondence,
please see inside front cover
(ISSN: 1550-7998)

PERIODICALS
Postmaster send address changes to:
PHYSICAL REVIEW D
APS Subscription Services
Suite 1N01
2 Huntington Quadrangle
Melville, NY 11747-4502

THIRD SERIES, VOLUME 75, NUMBER 5

CONTENTS

D1 MARCH 2007

RAPID COMMUNICATIONS

- High statistics study of the $f_0(980)$ resonance in $\gamma\gamma \rightarrow \pi^+\pi^-$ production (6 pages) 051101(R)
T. Mori *et al.* (Belle Collaboration)
- Measurement of B decays to $\phi K\gamma$ (8 pages) 051102(R)
B. Aubert *et al.* (BABAR Collaboration)

ARTICLES

- Measurement of the helicity fractions of W bosons from top quark decays using fully reconstructed $t\bar{t}$ events
with CDF II (11 pages) 052001
A. Abulencia *et al.* (CDF Collaboration)
- Measurements of Λ_c^+ branching fractions of Cabibbo-suppressed decay modes involving Λ and Σ^0 (11 pages) 052002
B. Aubert *et al.* (BABAR Collaboration)
- Study of the $D^0 \rightarrow \pi^-\pi^+\pi^-\pi^+$ decay (17 pages) 052003
J.M. Link *et al.*
- Search for axions from the Kuo-Sheng nuclear power reactor with a high-purity germanium detector (9 pages) 052004
H.M. Chang, H.T. Wong, M.H. Chou, M. Deniz, H.X. Huang, F.S. Lee, H.B. Li, J. Li, H.Y. Liao,
S.T. Lin, V. Singh, S.C. Wu, and B. Xin (TEXONO Collaboration)
- Observables sensitive to absolute neutrino masses: A reappraisal after WMAP 3-year and first MINOS results
(11 pages) 053001
G.L. Fogli, E. Lisi, A. Marrone, A. Melchiorri, A. Palazzo, P. Serra, J. Silk, and A. Slosar
- Physics with a very long neutrino factory baseline (16 pages) 053002
Raj Gandhi and Walter Winter
- Rotation of a magnetic field does not impact vacuum birefringence (4 pages) 053003
Sandip Biswas and Kirill Melnikov
- Unconventional neutrino mass generation, neutrinoless double beta decays, and collider phenomenology (5 pages) 053004
Chian-Shu Chen, C.Q. Geng, and J.N. Ng
- Searching for dark matter sterile neutrinos in the laboratory (6 pages) 053005
Fedor Bezrukov and Mikhail Shaposhnikov
- Minimal supergravity radiative effects on the tribimaximal neutrino mixing pattern (7 pages) 053006
M. Hirsch, Ernest Ma, J.C. Romao, J.W. Valle, and A. Villanova del Moral
- Full one-loop electroweak corrections to $h^0(H^0, A^0)H^\pm W^\mp$ associated productions at e^+e^- linear colliders
(8 pages) 053007
Liu Jing-Jing, Ma Wen-Gan, Zhang Ren-You, Guo Lei, Jiang Yi, and Han Liang
- Weak deeply virtual Compton scattering (24 pages) 054001
A. Psaker, W. Melnitchouk, and A.V. Radyushkin
- Diffraction dissociation including Pomeron loops in zero transverse dimensions (6 pages) 054002
Arif I. Shoshi and Bo-Wen Xiao



Copyright 2007 by The American Physical Society

(Continued)



1550-7998(20070301)75:5;1-9

CONTENTS - Continued

PHYSICAL REVIEW D

THIRD SERIES, VOLUME 75, NUMBER 5

D1 MARCH 2007

$B \rightarrow \eta^{(0)}(l^- \bar{\nu}_l, l^+ l^-, K, K^*)$ decays in the quark-flavor mixing scheme (9 pages)	054003
A.G. Akeroyd, Chuan-Hung Chen, and Chao-Qiang Geng	
$B \rightarrow V\gamma$ beyond QCD factorization (27 pages)	054004
Patricia Ball, Gareth W. Jones, and Roman Zwicky	
Neutron single spin asymmetries from semi-inclusive deep inelastic scattering off transversely polarized ^3He (10 pages)	054005
Sergio Scopetta	
Determination of γ from charmless $B \rightarrow M_1 M_2$ decays using U-spin (16 pages)	054006
Amarjit Soni and Denis A. Suprun	
Mixing of scalar tetraquark and quarkonia states in a chiral approach (15 pages)	054007
Francesco Giacosa	
High energy deeply virtual Compton scattering on a photon and related meson exclusive production (6 pages)	054008
Magno V. Machado	
Generalized parton distributions and rapidity gap survival in exclusive diffractive pp scattering (28 pages)	054009
L. Frankfurt, C.E. Hyde, M. Strikman, and C. Weiss	
Expectations on $B \rightarrow (K_0^*(1430), K_2^*(1430))\phi$ decays (10 pages)	054010
Chuan-Hung Chen and Chao-Qiang Geng	
Jets in effective theory: Summing phase space logs (14 pages)	054011
Michael Trott	
Goldstone boson currents in a kaon condensed color-flavor locked phase (8 pages)	054012
A. Gerhold, T. Schäfer, and A. Kryjevski	
Form factors from light-cone sum rules with B -meson distribution amplitudes (18 pages)	054013
Alexander Khodjamirian, Thomas Mannel, and Nils Offen	
K^* couplings for the antidecuplet excitation (5 pages)	054014
Ya. Azimov, V. Kuznetsov, M.V. Polyakov, and I. Strakovsky	
Production of a W boson and two jets with one b -quark tag (7 pages)	054015
J. Campbell, R.K. Ellis, F. Maltoni, and S. Willenbrock	
Method for comparing finite temperature field theory results with lattice data (20 pages)	054016
G. Cvetič and R. Kögerler	
Diquarks and the semileptonic decay of Λ_b in the hybrid scheme (9 pages)	054017
Peng Guo, Hong-Wei Ke, Xue-Qian Li, Cai-Dian Lü, and Yu-Ming Wang	
Associated charmonium production in low energy $p\bar{p}$ annihilation (7 pages)	054018
T. Barnes and X. Li	
Hadronic transition $\chi_{c1} \rightarrow \eta_c \pi \pi$ at the Beijing Spectrometer BES and the Cornell CLEO-c (5 pages)	054019
Qin Lu and Yu-Ping Kuang	
Analysis of the vertices ρNN , $\rho \Sigma \Sigma$, and $\rho \Xi \Xi$ with light-cone QCD sum rules (9 pages)	054020
Zhi-Gang Wang	
$pp \rightarrow pp\eta'$ reaction at high energies (12 pages)	054021
A. Szczurek, R.S. Pasechnik, and O.V. Teryaev	
Color-spin locking in a self-consistent Dyson-Schwinger approach (10 pages)	054022
Florian Marhauser, Dominik Nickel, Michael Buballa, and Jochen Wambach	
Pomeron in the weak and strong coupling limits and kinematical constraints (8 pages)	054023
Anna M. Staśto	
Instantons, chiral dynamics, and hadronic resonances (8 pages)	054024
M. Cristoforetti, P. Faccioli, and M. Traini	
Two-loop ultrasoft running of the $O(v^2)$ QCD quark potentials (8 pages)	054025
André H. Hoang and Maximilian Stahlhofen	
Quark number fluctuations in a chiral model at finite baryon chemical potential (19 pages)	054026
C. Sasaki, B. Friman, and K. Redlich	
Single B production through R -parity violation (6 pages)	054027
Ben O'Leary	

(Continued)

CONTENTS - Continued

PHYSICAL REVIEW D

THIRD SERIES, VOLUME 75, NUMBER 5

D1 MARCH 2007

Formation of gapless phases of K^0 condensed color-flavor locked superconducting quark matter (11 pages)	054028
Xiao-Bing Zhang and J.I. Kapusta	
Charm parton content of the nucleon (8 pages)	054029
J. Pumplin, H.L. Lai, and W.K. Tung	
Impact of new neutrino deep inelastic scattering and Drell-Yan data on large- x parton distributions (9 pages)	054030
J.F. Owens, J. Huston, C.E. Keppel, S. Kuhlmann, J.G. Morfín, F. Olness, J. Pumplin, and D. Stump	
Effects of the running of the QCD coupling on the energy loss in the quark-gluon plasma (6 pages)	054031
Jens Braun and Hans-Jürgen Pirner	
Transversity and Collins functions from SIDIS and e^+e^- data (14 pages)	054032
M. Anselmino, M. Boglione, U. D'Alesio, A. Kotzinian, F. Murgia, A. Prokudin, and C. Türk	
$B^0 \rightarrow \omega \eta^{(\prime)}$ and $\phi \eta^{(\prime)}$ decays in the perturbative QCD approach (14 pages)	054033
Dong-qin Guo, Xin-fen Chen, and Zhen-jun Xiao	
Two meson systems with Ginsparg-Wilson valence quarks (19 pages)	054501
Jiunn-Wei Chen, Donal O'Connell, and André Walker-Loud	
Highly improved staggered quarks on the lattice with applications to charm physics (23 pages)	054502
E. Follana, Q. Mason, C. Davies, K. Hornbostel, G.P. Lepage, J. Shigemitsu, H. Trotter, and K. Wong	
Renormalization-group analysis of the validity of staggered-fermion QCD with the fourth-root recipe (35 pages)	054503
Yigal Shamir	
Color screening and quark-quark interactions in finite temperature QCD (8 pages)	054504
Matthias Döring, Kay Hübner, Olaf Kaczmarek, and Frithjof Karsch	
Chiral violations in domain-wall QCD from one-loop perturbation theory at finite N_s (27 pages)	054505
Stefano Capitani	
Correlation between leptonic CP violation and μ - τ symmetry breaking (14 pages)	055001
Teppei Baba and Masaki Yasuè	
New physics from ultrahigh energy cosmic rays (8 pages)	055002
J.I. Illana, M. Masip, and D. Meloni	
Gauge mediation in supergravity and gravitino dark matter (11 pages)	055003
Masahiro Ibe and Ryuichiro Kitano	
Supersymmetric extra U(1) models with a singlino-dominated lightest superparticle (16 pages)	055004
Satoshi Nakamura and Daijiro Suematsu	
Three-loop corrections to the lightest Higgs scalar boson mass in supersymmetry (9 pages)	055005
Stephen P. Martin	
Hunting for the top partner in the littlest Higgs model with T parity at the CERN LHC (14 pages)	055006
Shigeki Matsumoto, Mihoko M. Nojiri, and Daisuke Nomura	
Direct WIMP detection in directional experiments (9 pages)	055007
J.D. Vergados and Amand Faessler	
Supersymmetry breaking and the radion in AdS ₄ brane worlds (10 pages)	055008
Andrey Katz, Yael Shadmi, and Yuri Shirman	
Gauge trimming of neutrino masses (15 pages)	055009
Mu-Chun Chen, André de Gouvêa, and Bogdan A. Dobrescu	
Interplay between collider searches for supersymmetric Higgs bosons and direct dark matter experiments (14 pages)	055010
Marcela Carena, Dan Hooper, and Alberto Vallinotto	
Lepton flavor violation in the little Higgs model with T parity (11 pages)	055011
S. Rai Choudhury, A.S. Cornell, A. Deandrea, Naveen Gaur, and A. Goyal	
Glueball enhancement by color deconfinement (5 pages)	055012
Vicente Vento	
Collider signatures of singlet extended Higgs sectors (11 pages)	055013
Vernon Barger, Paul Langacker, and Gabe Shaughnessy	
Light custodians in natural composite Higgs models (12 pages)	055014
Roberto Contino, Leandro Da Rold, and Alex Pomarol	

(Continued)

CONTENTS - *Continued*

PHYSICAL REVIEW D

THIRD SERIES, VOLUME 75, NUMBER 5

D1 MARCH 2007

Lepton flavor violating processes at the International Linear Collider (<i>17 pages</i>)	055015
P.M. Ferreira, R.B. Guedes, and R. Santos	
Atmospheric neutrino mixing and $b \rightarrow s$ transitions: Testing lopsided SO(10) flavor structure in B physics (<i>6 pages</i>)	055016
Xiangdong Ji, Yingchuan Li, and Yue Zhang	
Higgs boson exempt no-scale supersymmetry and its collider and cosmology implications (<i>17 pages</i>)	055017
Jason L. Evans, David E. Morrissey, and James D. Wells	
Twist-3 distribution amplitudes of scalar mesons from QCD sum rules (<i>9 pages</i>)	056001
Cai-Dian Lü, Yu-Ming Wang, and Hao Zou	
Cavity tests of parity-odd Lorentz violations in electrodynamics (<i>8 pages</i>)	056002
Matthew Mewes and Alexander Petroff	
Dynamical breakdown of Abelian gauge chiral symmetry by strong Yukawa interactions (<i>10 pages</i>)	056003
Petr Beneš, Tomáš Brauner, and Jiří Hošek	
Just so Higgs boson (<i>8 pages</i>)	056004
F. Bazzocchi, M. Fabbrichesi, and P. Ullio	
Fractional analytic perturbation theory in Minkowski space and application to Higgs boson decay into a $b\bar{b}$ pair (<i>21 pages</i>)	056005
A.P. Bakulev, S.V. Mikhailov, and N.G. Stefanis	
Quartification on an orbifold (<i>12 pages</i>)	056006
Alison Demaria and Kristian L. McDonald	

BRIEF REPORTS

Sum rules for total cross sections of hadron photoproduction on ground state $1/2^+$ octet baryons (<i>3 pages</i>)	057901
S. Dubnička, A.Z. Dubničková, and E.A. Kuraev	
Lorentz violating Julia-Toulouse mechanism (<i>4 pages</i>)	057902
Patricio Gaete and Clovis Wotzasek	

ERRATA

Erratum: Quark initial state interaction in deep inelastic scattering and the Drell-Yan process [Phys. Rev. D 71 , 034009 (2005)] (<i>1 page</i>)	059901(E)
O. Linnyk, S. Leupold, and U. Mosel	