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
500 Sunnyside Boulevard
Woodbury, NY 11797-2999

THIRD SERIES, VOLUME 55, NUMBER 1 ***CONTENTS*** **1 JANUARY 1997**

Editorial Policies and Practices of Physical Review D iii
General Information for Contributors vii
Guidelines for Estimating Length for Physical Review D xi

RAPID COMMUNICATIONS

Constraints on the τ neutrino mass and mixing from precise measurements of τ decay rates R1
J. Swain and L. Taylor
Transverse momentum as a measure of color topologies R5
E. Norrbin and T. Sjöstrand
Update of heavy baryon mass predictions R10
Elizabeth Jenkins

ARTICLES

Study of flavor-tagged baryon production in B decay 13
R. Ammar *et al.* (CLEO Collaboration)
Precise measurement of Bhabha scattering at a center-of-mass energy of 57.77 GeV 19
T. Arima *et al.* (VENUS Collaboration)
Measurement of monoenergetic neutrons from the $\overline{pd}$ reaction at rest 40
M. Chiba, K. Doi, T. Fujitani, K. Inoue, J. Iwahori, M. Kawaguti, M. Kobayashi, M. Koike, T. Kozuki, S. Kurokawa, H. Kusumoto, H. Nagano, Y. Nagashima, T. Omori, S. Sugimoto, M. Takasaki, F. Takeutchi, M. Tsuchiya, M. Ueda, Y. Yamaguchi, and H. Yoshida (Fukui-INS-KEK-Kyoto Sangyo-Meisei-Osaka-Tokyo Metropolitan Collaboration)
Heidelberg-Moscow $\beta\beta$ experiment with ^{76}Ge: Full setup with five detectors 54
M. Günther, J. Hellmig, G. Heusser, M. Hirsch, H. V. Klapdor-Kleingrothaus, B. Maier, H. Päs, F. Petry, Y. Ramachers, H. Strecker, M. Völlinger, A. Balysh, S. T. Belyaev, A. Demehin, A. Gurov, I. Kondratenko, D. Kotel'nikov, V. I. Lebedev, and A. Müller
Charged heavy lepton production in superstring-inspired E_6 models 68
M. M. Boyce, M. A. Doncheski, and H. König
Interaction of a small-size wave packet with a hadron target 98
L. Frankfurt, A. Radyushkin, and M. Strikman
Resummation in hard QCD processes 105
Hsiang-nan Li
Effects of QCD resummation on distributions of top-quark–top-antiquark pairs produced at the Fermilab Tevatron 120
S. Mrenna and C.-P. Yuan
QCD field correlations in high-energy scattering 130
Erasmo Ferreira and Flávio Pereira
Studying a strongly interacting electroweak sector via longitudinal gauge-boson scattering at a muon collider 142
V. Barger, M. S. Berger, J. F. Gunion, and T. Han
Finite W-width and initial-state radiative corrections to the reaction $e^+e^-\to W^+W^-\to l^+l^-\nu\nu$ 155
A. V. Ivkin and M. T. Nazirov
Neutral current interference in the TeV region: The experimental sensitivity at the CERN LHC 161
Michael Dittmar
How to find a Higgs boson with a mass between 155 and 180 GeV at the CERN LHC 167
M. Dittmar and H. Dreiner

(Continued)

0556-2821(19970101)55:1;1-H

CONTENTS - *Continued*

PHYSICAL REVIEW D **THIRD SERIES, VOLUME 55, NUMBER 1** **1 JANUARY 1997**

Jet algorithms and top quark mass measurement 173
Jon Pumplin
Probing the heavy quark content of the photon using b tagging at high energy $e\gamma$ and e^+e^- colliders 183
Michael A. Doncheski, Stephen Godfrey, and K. Andrew Peterson
Structured targets and the Landau-Pomeranchuk-Migdal effect 190
Richard Blankenbecler
D^0-$\overline{D^0}$ mixing and CP violation in neutral D-meson decays 196
Zhi-Zhong Xing
Role of (3*,3) operators in the chiral symmetry approach to nonleptonic decays and CP violation 219
Riazuddin
Radiative transitions of the D states of charmonium in potential models 225
K. J. Sebastian and X. G. Zhang
Internal W-emission and W-exchange contributions to $B\rightarrow D^{(*)}$ decays 237
Chung-Yi Wu, Tsung-Wen Yeh, and Hsiang-nan Li
Cancellation of infrared divergences in hadronic annihilation decays of heavy quarkonia 244
Han-Wen Huang and Kuang-Ta Chao
$g_{\omega\rho\pi}$ reexamined 249
M. Lublinsky
Relative strength of W exchange and factorization contributions in hadronic decays of charmed baryons 255
Fayyazuddin and Riazuddin
CP violation and CKM phases from angular distributions for B_s decays into admixtures of CP eigenstates 259
Robert Fleischer and Isard Dunietz
Upper bound for the supersymmetric tensor coupling of pion decay reexamined 268
D. Ghilencea
Asymptotics of heavy-meson form factors 272
A. G. Grozin and M. Neubert
Ground-state baryon masses in an equally mixed scalar-vector linear potential model 291
S. N. Jena, M. R. Behera, and S. Panda
Strange hadronic loops of the proton: A quark model calculation 299
Paul Geiger and Nathan Isgur
Ruling out a strongly interacting standard Higgs model 311
K. Riesselmann and S. Willenbrock
Is CP violation observable in long baseline neutrino oscillation experiments? 322
Morimitsu Tanimoto
Nonstandard string-SUSY scenario and its phenomenological implications 330
C.-H. Chen, M. Drees, and J. F. Gunion
Relating CKM parametrizations and unitarity triangles 348
Richard F. Lebed
Improvement of the staggered fermion operators 353
Yubing Luo
Scaling functions for O(4) in three dimensions 362
Doug Toussaint
Nonperturbative treatment of heavy quarks and mesons 367
C. J. Burden and D.-S. Liu
Renormalizing the heavy quark effective field theory Lagrangian to order $1/m^2$ 377
Markus Finkemeier and Matt McIrvin
Three families from $SU(4)_A\otimes SU(3)_C\otimes SU(2)_L\otimes U(1)_X$ SM-like chiral models 383
Otto C. W. Kong
Leptophobic Z' in stringy flipped SU(5) 397
Jorge L. Lopez and D. V. Nanopoulos
More nonperturbative corrections to the fine and hyperfine splitting in heavy quarkonium 407
A. Pineda

(Continued)

CONTENTS - *Continued*

PHYSICAL REVIEW D **THIRD SERIES, VOLUME 55, NUMBER 1** **1 JANUARY 1997**

BRIEF REPORTS

Is the $ee\gamma\gamma+\not{E}_T$ event observed by the Collider Detector at Fermilab evidence for a light axino? 411
J. Hisano, K. Tobe, and T. Yanagida

Dynamical supersymmetry breaking without messenger gauge interactions 415
T. Hotta, K.-I. Izawa, and T. Yanagida

Decay constants and mixing parameters in a relativistic model for a $q\overline{Q}$ system 419
Mohammad R. Ahmady, Roberto R. Mendel, and James D. Talman

Application of sum rules to heavy baryon masses 423
Jerrold Franklin

Mixing of Ξ_c-Ξ_c' baryons 425
Jerrold Franklin

Supersymmetric unification with radiative breaking of R parity 427
J. C. Romão, A. Ioannissyan, and J. W. F. Valle

Cumulative Author Index 431