

NU
p59/rd

PHYSICAL REVIEW DTM

PARTICLES, FIELDS, GRAVITATION, AND COSMOLOGY

Articles Published in JULY 2013
PART A

D15

Published by
AMERICAN PHYSICAL SOCIETYTM

Volume 88

Third Series

Number 2

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

Postmaster send address changes to:

APS Subscription Services
P.O. Box 41
Annapolis Junction, MD 20701

THIRD SERIES, VOLUME 88, NUMBER 2
PARTS A AND B

CONTENTS

D15 JULY 2013

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

Part A consists of articles 021101–024038, and Part B articles 024039–028702

PART A

RAPID COMMUNICATIONS

Direct measurement of the bubble-nucleation energy threshold in a CF ₃ I bubble chamber (5 pages)	021101(R)
E. Behnke, T. Benjamin, S.J. Brice, D. Broemmelsiek, J.I. Collar, P.S. Cooper, M. Crisler, C.E. Dahl, D. Fustin, J. Hall, C. Harnish, I. Levine, W.H. Lippincott, T. Moan, T. Nania, R. Neilson, E. Ramberg, A.E. Robinson, M. Ruschman, A. Sonnenschein, E. Vázquez-Jáuregui, R.A. Rivera, and L. Uplegger (COUPP Collaboration)	
Fluid phonons, protoinflationary dynamics, and large-scale gravitational fluctuations (5 pages)	021301(R)
Massimo Giovannini	
Gauge fields and inflation: Chiral gravitational waves, fluctuations, and the Lyth bound (6 pages)	021302(R)
Peter Adshead, Emil Martinec, and Mark Wyman	
Black hole from merging binary neutron stars: How fast can it spin? (5 pages)	021501(R)
Wolfgang Kastaun, Filippo Galeazzi, Daniela Alic, Luciano Rezzolla, and José A. Font	
Effective theory for the Vainshtein mechanism from the Horndeski action (6 pages)	021502(R)
Kazuya Koyama, Gustavo Niz, and Gianmassimo Tasinato	
Monodromy transform and the integral equation method for solving the string gravity and supergravity equations in four and higher dimensions (6 pages)	021503(R)
G. A. Alekseev	
General-relativistic simulations of binary black hole-neutron stars: Precursor electromagnetic signals (6 pages)	021504(R)
Vasileios Paschalidis, Zachariah B. Etienne, and Stuart L. Shapiro	
Quantum critical behavior in three dimensional lattice Gross-Neveu models (5 pages)	021701(R)
Shailesh Chandrasekharan and Anyi Li	

ARTICLES

Rømer time-delay determination of the gravitational-wave propagation speed (5 pages)	022001
Lee Samuel Finn and Joseph D. Romano	
Realistic filter cavities for advanced gravitational wave detectors (7 pages)	022002
M. Evans, L. Barsotti, P. Kwee, J. Harms, and H. Miao	
Pulsar interpretation for the AMS-02 result (8 pages)	023001
Peng-Fei Yin, Zhao-Huan Yu, Qiang Yuan, and Xiao-Jun Bi	
Faster computation of adiabatic extreme mass-ratio inspirals using resonances (28 pages)	023002
Rebecca Grossman, Janna Levin, and Gabe Perez-Giz	



Probing modified gravity theories with the Sandage-Loeb test (8 pages)	023003
Zhengxiang Li, Kai Liao, Puxun Wu, Hongwei Yu, and Zong-Hong Zhu	
Gaussian curvature and global effects: Gravitational Aharonov-Bohm effect revisited (7 pages)	023004
M. Nouri-Zonoz and A. Parvizi	
DBI analog of a decaying vacuum cosmology (8 pages)	023005
Dennis Bessada	
Reconstructing exact scalar-tensor cosmologies via conformal transformations (9 pages)	023006
Stefano Vignolo, Sante Carloni, and Francesco Vietri	
Equation-of-state-independent relations in neutron stars (5 pages)	023007
Andrea Maselli, Vitor Cardoso, Valeria Ferrari, Leonardo Gualtieri, and Paolo Pani	
Combining collective, MSW, and turbulence effects in supernova neutrino flavor evolution (29 pages)	023008
Tina Lund and James P. Kneller	
I-Love-Q relations in neutron stars and their applications to astrophysics, gravitational waves, and fundamental physics (28 pages)	023009
Kent Yagi and Nicolás Yunes	
Anisotropic cosmic ray diffusion and its implications for gamma-ray astronomy (14 pages)	023010
G. Giacinti, M. Kachelrieß, and D.V. Semikoz	
Conservative 3 + 1 general relativistic Boltzmann equation (21 pages)	023011
Christian Y. Cardall, Eirik Endeve, and Anthony Mezzacappa	
Modeling the phase-space distribution around massive halos (25 pages)	023012
Tsz Yan Lam, Fabian Schmidt, Takahiro Nishimichi, and Masahiro Takada	
Dark matter and pulsar origins of the rising cosmic ray positron fraction in light of new data from the AMS (11 pages)	023013
Ilias Cholis and Dan Hooper	
Determination of the cosmic antideuteron flux in a Monte Carlo approach (11 pages)	023014
Alejandro Ibarra and Sebastian Wild	
Tickling the CMB damping tail: Scrutinizing the tension between the Atacama Cosmology Telescope and South Pole Telescope experiments (7 pages)	023501
Eleonora Di Valentino, Silvia Galli, Massimiliano Lattanzi, Alessandro Melchiorri, Paolo Natoli, Luca Pagano, and Najla Said	
All-sky analysis of the general relativistic galaxy power spectrum (19 pages)	023502
Jaiyul Yoo and Vincent Desjacques	
Cosmological constraints on the new holographic dark energy model with action principle (11 pages)	023503
Miao Li, Xiao-Dong Li, Jun Meng, and Zhenhui Zhang	
Constraints on dark matter annihilation by radio observations of M31 (18 pages)	023504
A.E. Egorov and E. Pierpaoli	
Unified dark fluid with fast transition: Including entropic perturbations (11 pages)	023505
Weiqiang Yang and Lixin Xu	
Embedding the 125 GeV Higgs boson measured at the LHC in an effective MSSM: Possible implications for neutralino dark matter (13 pages)	023506
S. Scopel, N. Fornengo, and A. Bottino	
Bispectrum in single-field inflation beyond slow-roll (19 pages)	023507
Peter Adshead, Wayne Hu, and Vinícius Miranda	
Reexamination of inflation in noncommutative space-time after Planck results (9 pages)	023508
Nan Li and Xin Zhang	
Possible compensation of the QCD vacuum contribution to the dark energy (6 pages)	023509
Roman Pasechnik, Vitaly Beylin, and Grigory Vereshkov	
CDM and baryons as distinct fluids in a linear approximation for the growth of structure (5 pages)	023510
Soma De, James B. Dent, and Lawrence M. Krauss	
Nonthermal WIMPs as “dark radiation” in light of ATACAMA, SPT, WMAP9, and Planck (8 pages)	023511
Chris Kelso, Stefano Profumo, and Farinaldo S. Queiroz	
Small non-Gaussianity and dipole asymmetry in the cosmic microwave background (4 pages)	023512
Lingfei Wang and Anupam Mazumdar	

Planck constraints on the effective neutrino number and the CMB power spectrum lensing amplitude (6 pages) Najla Said, Eleonora Di Valentino, and Martina Gerbino	023513
Massive spin-2 fields on black hole spacetimes: Instability of the Schwarzschild and Kerr solutions and bounds on the graviton mass (24 pages)	023514
Richard Brito, Vitor Cardoso, and Paolo Pani	
Peak-background split, renormalization, and galaxy clustering (25 pages)	023515
Fabian Schmidt, Donghui Jeong, and Vincent Desjacques	
Stochastic gravitational wave background generated by cosmic string networks: Velocity-dependent one-scale model versus scale-invariant evolution (12 pages)	023516
L. Sousa and P.P. Avelino	
Cosmological perturbations from statistical thermal fluctuations (10 pages)	023517
Tirthabir Biswas, Robert Brandenberger, Tomi Koivisto, and Anupam Mazumdar	
Bouncing anisotropic universes with varying constants (8 pages)	023518
John D. Barrow and David Sloan	
Some aspects of tachyon field cosmology (31 pages)	023519
Kourosh Nozari and Narges Rashidi	
Galactic structure explained with dissipative mirror dark matter (15 pages)	023520
R. Foot	
Cosmological constraints on the curvaton web parameters (11 pages)	023521
Edgar Bugaev and Peter Klimai	
Maximum entropy deconvolution of primordial power spectrum (14 pages)	023522
Gaurav Goswami and Jayanti Prasad	
Primordial non-Gaussianity of gravitational waves in Hořava-Lifshitz gravity (11 pages)	023523
Yongqing Huang, Anzhong Wang, Razieh Yousefi, and Tao Zhu	
Efficiency of pseudospectrum methods for estimation of the cosmic microwave background <i>B</i> -mode power spectrum (23 pages)	023524
A. Ferté, J. Grain, M. Tristram, and R. Stompor	
Natural GeV dark matter and the baryon-dark matter coincidence puzzle (6 pages)	023525
Rouzbeh Allahverdi and Bhaskar Dutta	
Quantum origin of the primordial fluctuation spectrum and its statistics (27 pages)	023526
Susana Landau, Gabriel León, and Daniel Sudarsky	
Impact on the power spectrum of screening in modified gravity scenarios (30 pages)	023527
Philippe Brax and Patrick Valageas	
Supersymmetric cubic Galileons have ghosts (7 pages)	023528
Michael Koehn, Jean-Luc Lehners, and Burt A. Ovrut	
Planck constraints on single-field inflation (21 pages)	023529
Shinji Tsujikawa, Junko Ohashi, Sachiko Kuroyanagi, and Antonio De Felice	
Searching for spurious solar and sky lines in the Fermi-LAT spectrum (8 pages)	023530
Daniel Whiteson	
New constraints on coupled dark energy from the Planck satellite experiment (9 pages)	023531
Valentina Salvatelli, Andrea Marchini, Laura Lopez-Honorez, and Olga Mena	
Thawing models in the presence of a generalized Chaplygin gas (17 pages)	023532
Sergio del Campo, Carlos R. Fadrugas, Ramón Herrera, Carlos Leiva, Genly Leon, and Joel Saavedra	
Presence or absence of light moduli: The controlling feature for supersymmetry phenomenology (12 pages)	023533
Milton Bose, Michael Dine, and Patrick Draper	
Primordial non-Gaussianity and reionization (17 pages)	023534
Adam Lidz, Eric J. Baxter, Peter Adshead, and Scott Dodelson	
Soft singularity crossing and transformation of matter properties (12 pages)	023535
Zoltán Keresztes, László Á. Gergely, Alexander Yu. Kamenshchik, Vittorio Gorini, and David Polarski	
Exploring the outer limits of numerical relativity (13 pages)	024001
Carlos O. Lousto and Yosef Zlochower	

Self-force gravitational waveforms for extreme and intermediate mass ratio inspirals. II. Importance of the second-order dissipative effect (<i>9 pages</i>)	024002
Lior M. Burko and Gaurav Khanna	
Evidence for and obstructions to nonlinear partially massless gravity (<i>14 pages</i>)	024003
Claudia de Rham, Kurt Hinterbichler, Rachel A. Rosen, and Andrew J. Tolley	
Cosmologies of multiple spherical brane-universe model (<i>6 pages</i>)	024004
I.C. Jardim, R.R. Landim, G. Alencar, and R.N. Costa Filho	
Phase transition, critical behavior, and critical exponents of Myers-Perry black holes (<i>8 pages</i>)	024005
Mohammad Bagher Jahani Poshteh, Behrouz Mirza, and Zeinab Sherkatghanad	
Einstein gravity with Gauss-Bonnet entropic corrections (<i>8 pages</i>)	024006
Guido Cognola, Ratbay Myrzakulov, Lorenzo Sebastiani, and Sergio Zerbini	
Late-time acceleration in a slow-moving Galileon field (<i>7 pages</i>)	024007
Debabrata Adak, Amna Ali, and Debasish Majumdar	
Magnetic fields of spherical compact stars in modified theories of gravity: $f(R)$ type gravity and Hořava-Lifshitz gravity (<i>9 pages</i>)	024008
Abdullo Hakimov, Ahmadjon Abdujabbarov, and Bobomurat Ahmedov	
Resonances of Kalb-Ramond field on symmetric and asymmetric thick branes (<i>10 pages</i>)	024009
Yun-Zhi Du, Li Zhao, Yi Zhong, Chun-E Fu, and Heng Guo	
Thermodynamics of quantum isolated horizons with model Hamiltonians (<i>10 pages</i>)	024010
Abhishek Majhi	
Self-energy of the Lorentzian Engle-Pereira-Rovelli-Livine and Freidel-Krasnov model of quantum gravity (<i>30 pages</i>)	024011
Aldo Riello	
Future CMB integrated-Sachs-Wolfe-lensing bispectrum constraints on modified gravity in the parametrized post-Friedmann formalism (<i>13 pages</i>)	024012
Bin Hu, Michele Liguori, Nicola Bartolo, and Sabino Matarrese	
Three dimensional Eddington-inspired Born-Infeld gravity: Solutions (<i>10 pages</i>)	024013
Soumya Jana and Sayan Kar	
High energy modifications of blackbody radiation and dimensional reduction (<i>11 pages</i>)	024014
Viqar Husain, Sanjeev S. Seahra, and Eric J. Webster	
Exploring torus universes in causal dynamical triangulations (<i>14 pages</i>)	024015
T.G. Budd and R. Loll	
Particle acceleration near a rotating black hole in a Randall-Sundrum brane with a cosmological constant (<i>12 pages</i>)	024016
S.R. Shaymatov, B.J. Ahmedov, and A.A. Abdujabbarov	
Linearization of thick K -branes (<i>7 pages</i>)	024017
Yuan Zhong and Yu-Xiao Liu	
Nonviolent information transfer from black holes: A field theory parametrization (<i>6 pages</i>)	024018
Steven B. Giddings	
Problems with propagation and time evolution in $f(T)$ gravity (<i>15 pages</i>)	024019
Yen Chin Ong, Keisuke Izumi, James M. Nester, and Pisin Chen	
Dynamical instability of the charged expansion-free spherical collapse in $f(R)$ gravity (<i>14 pages</i>)	024020
M. Sharif and Z. Yousof	
Infrared dynamics of the massive ϕ^4 theory on de Sitter space (<i>10 pages</i>)	024021
E.T. Akhmedov, F.K. Popov, and V.M. Slepukhin	
Hamiltonian form of topologically massive supergravity (<i>10 pages</i>)	024022
Alasdair Routh	
Cosmological perturbations in extended massive gravity (<i>17 pages</i>)	024023
A. Emir Gümrukçuoğlu, Kurt Hinterbichler, Chunshan Lin, Shinji Mukohyama, and Mark Trodden	
Two-dimensional semiclassical static black holes: Finite-mass correction to the Hawking temperature and outflux (<i>9 pages</i>)	024024
Adam Levi and Amos Ori	

Method to estimate the significance of coincident gravitational-wave observations from compact binary coalescence (9 pages)	024025
Kipp Cannon, Chad Hanna, and Drew Keppel	
Thermodynamics of local causal horizons (5 pages)	024026
Arif Mohd and Sudipta Sarkar	
Probing Hawking and Unruh effects and quantum field theory in curved space by geometric invariants (9 pages)	024027
Antonio Capolupo and Giuseppe Vitiello	
Scalar and fermionic vacuum currents in de Sitter spacetime with compact dimensions (12 pages)	024028
S. Bellucci, A. A. Saharian, and H. A. Nersisyan	
Post-Newtonian approach to black hole-fluid systems (14 pages)	024029
Enrico Barausse and Luis Lehner	
Singularity problem in teleparallel dark energy models (6 pages)	024030
Chao-Qiang Geng, Je-An Gu, and Chung-Chi Lee	
Gravity asymptotics with topological parameters (6 pages)	024031
Sandipan Sengupta	
Self-energy anomaly of an electric pointlike dipole in three-dimensional static spacetimes (9 pages)	024032
Valeri P. Frolov, Andrey A. Shoom, and Andrei Zelnikov	
Generalized Riemann curvature corrections to type II supergravity (4 pages)	024033
Mohammad R. Garousi	
Template mode hierarchies for binary black hole mergers (14 pages)	024034
James Healy, Pablo Laguna, Larne Pekowsky, and Deirdre Shoemaker	
Particle production in $f(R)$ gravity during structure formation (12 pages)	024035
E. V. Arbutova, A. D. Dolgov, and L. Reverberi	
Gravitational theoretical development supporting MOND (5 pages)	024036
Edmund A. Chadwick, Timothy F. Hodgkinson, and Graham S. McDonald	
Imaginary part of the gravitational action at asymptotic boundaries and horizons (15 pages)	024037
Yasha Neiman	
Comparison of post-Newtonian templates for extreme mass ratio inspirals (10 pages)	024038
Vijay Varma, Ryuichi Fujita, Ashok Choudhary, and Bala R. Iyer	
PART B	
Stability of Schwarzschild black holes in fourth-order gravity revisited (4 pages)	024039
Yun Soo Myung	
Comparing gravitational waves from nonprecessing and precessing black hole binaries in the corotating frame (27 pages)	024040
L. Pekowsky, R. O'Shaughnessy, J. Healy, and D. Shoemaker	
Propagators in de Sitter space (41 pages)	024041
Masafumi Fukuma, Sotaro Sugishita, and Yuho Sakatani	
Equatorial circular orbits of neutral test particles in the Kerr-Newman spacetime (27 pages)	024042
Daniela Pugliese, Hernando Quevedo, and Remo Ruffini	
Degravitation features in the cascading gravity model (14 pages)	024043
Parvin Moyassari and Masato Minamitsuji	
Gravitational collapse in Hořava-Lifshitz theory (21 pages)	024044
Jared Greenwald, Jonatan Lenells, V. H. Satheeshkumar, and Anzhong Wang	
Gravitational energy, gravitational pressure, and the thermodynamics of a charged black hole in teleparallel gravity (8 pages)	024045
K. H. Castello-Branco and J. F. da Rocha-Neto	
First-post-Newtonian quadrupole tidal interactions in binary systems (30 pages)	024046
Justin E. Vines and Éanna É. Flanagan	
Poincaré invariance and asymptotic flatness in shape dynamics (19 pages)	024047
Henrique Gomes	
Lower bounds for the area of black holes in terms of mass, charge, and angular momentum (7 pages)	024048
Sergio Dain, Marcus Khuri, Gilbert Weinstein, and Sumio Yamada	