List of weekly accessions
Preprints
(DESY week 38)

partial listing = relevant for HEP

http://www-library.desy.de/lists/preps/prep-38.html

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29 articles in Astrophysics (partial listing)
10 articles in Condensed Matter (partial listing)
55 articles in General Relativity and Quantum Cosmology
32 articles in High Energy Physics - Experiment
8 articles in High Energy Physics - Lattice
107 articles in High Energy Physics - Phenomenology
74 articles in High Energy Physics - Theory
4 articles in Nuclear Experiment (partial listing)
16 articles in Nuclear Theory (partial listing)
25 articles in Physics (partial listing)
4 articles in Quantum Physics (partial listing)
19 articles in Mathematical Physics (partial listing)
5 articles in Mathematics (partial listing)
1 articles in Computer Science (partial listing)
4 articles in Accelerators

Astrophysics (partial listing)

Gamma Ray Bursts: recent results and connections to very high energy Cosmic Rays and Neutrinos

P\'eter M\'esz\'aros, Katsuaki Asano, P\'eter Veres

astro-ph/1209.2436

Comments: 12 pages, 7 figures. Text of a plenary lecture at the PASCOS 12 conference, Merida, Yucatan, Mexico, June 2012; to appear in J.Phys. (Conf. Series)

Fast Analytic Computation of Cosmic String Power Spectra

Anastasios Avgoustidis, Edmund J. Copeland, Adam Moss, Dimitri Skliros

astro-ph/1209.2461

Comments: 13 pages, 3 figures

The Distinguishability of Interacting Dark Energy from Modified Gravity

Timothy Clemson and Kazuya Koyama

astro-ph/1209.2618

Comments: 8 pages, 5 figures

The Effect of Curvaton Decay on the Primordial Power Spectrum

Hassan Firouzjahi, Anne Green, Karim Malik, Moslem Zarei

astro-ph/1209.2652

Comments: 13 pages, 6 figures

Cyg X-3: a Galactic double black hole or black hole-neutron star progenitor

Krzysztof Belczynski, Tomasz Bulik, Ilya Mandel, B.S. Sathyaprakash, Andrzej Zdziarski, Joanna Mikolajewska

astro-ph/1209.2658

Comments: ApJ, submitted (8 pages)

Cosmological Implications of the Effective Field Theory of Cosmic Acceleration

Eva-Maria Mueller, Rachel Bean, Scott Watson

astro-ph/1209.2706

Comments: 16 pages, 7 figures

An Angle Dependent SSC Model for Relativistic Jet Sources

Omar Jamil , Markus Boettcher
astro-ph/1209.2711
Comments: Accepted for publication in ApJ. 10 Pages, 9 figures

The Quest for Gravity Wave B-modes

C. Pryke
astro-ph/1209.2768
Comments: 10 pages, 4 figures, proceedings paper for Moriond Cosmology 2012

Bayesian Inference of Polarized CMB Power Spectra from Interferometric Data

Ata Karakci, Paul M. Sutter, Le Zhang, Emory F. Bunn, Andrei Korotkov, Peter Timbie, Gregory S. Tucker and Benjamin D. Wandelt
astro-ph/1209.2930
Comments: 8 pages, 8 figures, submitted to ApJS

Hidden Negative Energies in Strongly Accelerated Universes

Ignacy Sawicki and Alexander Vikman
astro-ph/1209.2961
Comments: 5 pages, 1 figure
Report-no: CERN-PH-TH/2012-242

Stringent and Robust Constraints on the Dark Matter Annihilation Cross Section From the Region of the Galactic Center

Dan Hooper, Chris Kelso, and Farinaldo S. Queiroz
astro-ph/1209.3015
Comments: 21 pages, 14 figures
Report-no: FERMILAB-PUB-12-505-A

Testing General Relativity in the Strong-Field Regime with Observations of Black Holes in the Electromagnetic Spectrum

Tim Johannsen
astro-ph/1209.3024
Comments: 6 pages (preprint), dissertation summary, to appear in PASP

Electromagnetic transients as triggers in searches for gravitational waves from compact binary mergers

Luke Zoltan Kelley, Ilya Mandel and Enrico Ramirez-Ruiz
astro-ph/1209.3027
Comments: 35 pages, 2 figures

Accelerator experiments with soft protons and hyper-velocity dust particles: application to ongoing projects of future X-ray missions

E. Perinati, S. Diebold, E. Kendziorra, A. Santangelo, C. Tenzer, J. Jochum, S. Bugiel, R. Srama, E. Del Monte, M. Feroci, A. Rubini, A. Rachevski, G. Zampa, N. Zampa, I. Rashevskaya, A. Vacchi, P. Azzarello, E. Bozzo, J.-W. den Herder, S. Zane, S. Brandt, M. Hernanz, M. A. Leutenegger, R. L. Kelley, C. A. Kilbourne, N. Meidinger, L. Str\"uder, B. Cordier, D. G\"otz, G. W. Fraser, J. P. Osborne, K. Dennerl, M. Freyberg, and P. Friedrich
astro-ph/1209.3094
Comments: Proceedings of SPIE, Vol. 8443, Paper No. 8443-24, 2012

Charged current neutrino interactions in core-collapse supernovae in a virial expansion

C. J. Horowitz, G. Shen, Evan O'Connor, Christian Ott
astro-ph/1209.3173
Comments: 8 pages, 4 figures, submitted to Phys. Rev. C
Report-no: INT-PUB-12-036

Enhanced Preheating after Multi-Field Inflation: On the Importance of being Special

Thorsten Battefeld, Alexander Eggemeier, John T. Giblin Jr
astro-ph/1209.3301
Comments: 44 pages, 23 figures

Annual Modulation of Dark Matter: A Review

Katherine Freese, Mariangela Lisanti, Christopher Savage

astro-ph/1209.3339

Comments: 37 pages, 7 figures. To appear in Review of Modern Physics

CMB power spectra induced by primordial cross-bispectra between metric perturbations and vector fields

Maresuke Shiraishi, Shohei Saga, Shuichiro Yokoyama

astro-ph/1209.3384

Comments: 31 pages, 1 figure, Comments are welcome

Report-no: ICRR-Report-626-2012-15

High-Energy Neutrino Astronomy: Status and prospects for cosmic-ray physics

V. Van Elewyck

astro-ph/1209.3425

Comments: Prepared for the Proceedings of the 14th Workshop on Elastic and Diffractive Scattering (EDS Blois Workshop) "Frontiers of QCD: From Puzzles to Discoveries", December 15-21, 2011, Quy Nhon, Vietnam

Solar constraints on asymmetric dark matter

Ilidio Lopes and Joseph Silk

astro-ph/1209.3631

Comments: 9 pages, 3 figures

Journal-ref: 2012 ApJ 757 130

A corresponding-state approach to quark-cluster matter

Y. J. Guo, X. Y. Lai, R. X. Xu

astro-ph/1209.3688

Comments: 7 pages, 8 figures, 1 table

The mixing in the solar core and the neutrino fluxes

Anatoly Kopylov, Valery Petukhov

astro-ph/1209.3719

Comments: 7 pages, 2 figures

Expected Sensitivity to Galactic/Solar Axions and Bosonic Super-WIMPs based on the Axio-electric Effect in Liquid Xenon Dark Matter Detectors

K. Arisaka, P. Beltrame, C. Ghag, J. Kaidi, K. Lung, A. Lyashenko, R. D. Peccei, P. Smith, and K. Ye

astro-ph/1209.3810

Comments: 16 pages, 10 figures

Antennas for the Detection of Radio Emission Pulses from Cosmic-Ray induced Air Showers at the Pierre Auger Observatory

P. Abreu, M. Aglietta, M. Ahlers, E.J. Ahn, I.F.M. Albuquerque, D. Allard, I. Allekotte, J. Allen, P. Allison, A. Almela, J. Alvarez Castillo, J. Alvarez-Mu\~niz, R. Alves Batista, M. Ambrosio, A. Aminaei, L. Anchordoqui, S. Andringa, T. Anti\v{c}i\'c, C. Aramo, E. Arganda, F. Arqueros, H. Asorey, P. Assis, J. Aublin, M. Ave, M. Avenier, G. Avila, A.M. Badescu, M. Balzer, K.B. Barber, A.F. Barbosa, R. Bardenet, S.L.C. Barroso, B. Baughman, J. B\"auml, C. Baus, J.J. Beatty, K.H. Becker, A. Bel\'etoile, J.A. Bellido, S. BenZvi, C. Berat, X. Bertou, P.L. Biermann, P. Billoir, F. Blanco, M. Blanco, C. Bleve, H. B\"umer, M. M. Boh\'a\v{c}ov\'a, D. Boncioli, C. Bonifazi, R. Bonino, N. Borodai, J. Brack, I. Brancus, P. Brogueira, W.C. Brown, R. Bruijn, P. Buchholz, A. Bueno, L. Buroker, R.E. Burton, et al.

astro-ph/1209.3840

Comments: Accepted for publication in JINST, 50 pages, 25 figures

Parameter Estimation in Searches for the Stochastic Gravitational-Wave Background

Vuk Mandic, Eric Thrane, Stefanos Giampanis, Tania Regimbau

astro-ph/1209.3847

Comments: 6 pages, 5 figures

Nonrelativistic parallel shocks in unmagnetized and weakly magnetized plasmas

Jacek Niemiec and Martin Pohl and Antoine Bret and Volkmar Wieland

astro-ph/1209.3938
Comments: 22 pages, 18 figures

Constraints on the Emission Geometries of Gamma-ray Millisecond Pulsars Observed with the Fermi Large Area Telescope

T. J. Johnson
astro-ph/1209.4000
Comments: Thesis in partial fulfilment of requirement for Doctor of Philosophy, defended April 2011, degree awarded May 2011, Department of Physics, University of Maryland, College Park, MD. Only change from submitted version is use of single spaced text instead of double spaced

Cosmological Backgrounds of Gravitational Waves and eLISA

Jean-Francois Dufaux
astro-ph/1209.4024
Comments: 11 pages, to appear in the proceedings of the 9th LISA Symposium

PeV neutrinos from the propagation of ultra-high energy cosmic rays

Esteban Roulet, Guenter Sigl, Arjen van Vliet, Silvia Mollerach
astro-ph/1209.4033
Comments: 14 pages, 4 figures

Condensed Matter (partial listing)

Lattice methods for strongly interacting many-body systems

Joaqu\'in E. Drut, Amy N. Nicholson
cond-mat/1208.6556
Comments: 68 pages, 32 figures; topical review for J. Phys. G
Report-no: LA-UR-12-22454; UM-DOE/ER/40762-524

Parafermionic edge zero modes in Z_n-invariant spin chains

Paul Fendley
cond-mat/1209.0472
Comments: 22 pages

Melting of hexagonal Skyrmion states in chiral magnets

Matthew Ambrose and Robert Stamps
cond-mat/1209.0556
Comments: 15 pages, 10 figures

Atom lasers: production, properties and prospects for precision inertial measurement

N. P. Robins, P. A. Altin, J. E. Debs, and J. D. Close
cond-mat/1209.2172
Comments: This is a review paper. It contains 40 pages, including references and figures

Establishing non-Abelian topological order in Gutzwiller projected Chern insulators via Entanglement Entropy and Modular S-matrix

Yi Zhang and Ashvin Vishwanath
cond-mat/1209.2424
Comments: 6 pages, 3 figures

The Hubbard model with spin orbit coupling: a lattice gauge theory approach

Giuseppe Guarnaccia and Canio Noce
cond-mat/1209.2844
Comments: 7 pages
Journal-ref: Phys. Rev. B 86, 064409 (2012)

Physics of three dimensional bosonic topological insulators: Surface Deconfined Criticality and Quantized Magnetoelectric Effect

Ashvin Vishwanath and T. Senthil
cond-mat/1209.3058
Comments: 23 pages+ 3 pages Appendices, 3 figures

A glance at the imaginary world of ultracold atoms

Jens Braun, Jiunn-Wei Chen, Jian Deng, Joaqu\'in E. Drut, Bengt Friman, Chen-Te Ma, Yu-Dai Tsai
cond-mat/1209.3319
Comments: 5 pages, 2 figures

Topological Fermi arcs

M.A. Silaev and G.E. Volovik
cond-mat/1209.3368
Comments: 6 pages, 4 figures

Momentum-space instantons and maximally localized flat-band topological Hamiltonians

Chao-Ming Jian, Zheng-Cheng Gu and Xiao-Liang Qi
cond-mat/1209.3861
Comments: 3 pages, 1 figure, submitted to Phys. Status Solidi RRL (2012) for the Focus Issue: Topological Insulators -- From Materials Design to Reality

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General Relativity and Quantum Cosmology

Black hole bombs and photon mass bounds

Paolo Pani, Vitor Cardoso, Leonardo Gualtieri, Emanuele Berti, Akihiro Ishibashi
gr-qc/1209.0465
Comments: 5 pages, 2 figures. To appear in PRL

Observational effects from quantum cosmology

Gianluca Calcagni
gr-qc/1209.0473
Comments: 14 pages, 3 figures. Invited review article also containing original material

Exact relativistic models of thin disks around static black holes in a magnetic field

Antonio C. Guti\'errez-Pi\~nerez, Gonzalo Garc\'ia-Reyes, and Guillermo A. Gonz\'alez
gr-qc/1209.0500
Comments: 18 pages, 11 figures. arXiv admin note: substantial text overlap with arXiv:1009.1084

Manifold invariants affect dynamics in ADS gravity

Tomas Liko
gr-qc/1209.0519
Comments: 4 pages; conference proceeding based on talk given at Theory Canada 7 at the University of Lethbridge (8 June 2012); to appear in Canadian Journal of Physics

On the gravitational wave background from compact binary coalescence in the band of ground-based interferometers

Xing-Jiang Zhu, Eric J. Howell, David G. Blair, Zong-Hong Zhu
gr-qc/1209.0595
Comments: 17 pages, 12 figures, 3 tables; Submitted to MNRAS
Report-no: LIGO-P1200105-v2

Planetary ephemerides and gravity tests in the solar system

A. Fienga
gr-qc/1209.0635
Comments: Proceedings of the Rencontres de Moriond 2011

A method to estimate the significance of coincident gravitational-wave observations from compact binary coalescence

Kipp Cannon, Chad Hanna, Drew Keppel
gr-qc/1209.0718

Geometric phase outside a Schwarzschild black hole and the Hawking effect

Jiawei Hu and Hongwei Yu
gr-qc/1209.2496
Comments: 14 pages, no figures, a typo in the References corrected, version to appear in JHEP. arXiv admin note: text overlap with arXiv:1109.0335

Constraining Gravity with LISA Detections of Binaries

Priscilla Canizares , Jonathan R. Gair and Carlos F. Sopuerta
gr-qc/1209.2534
Comments: 5 pages, 1 figure, 2 tables. Proceeding of the 9th LISA Symposium

Vacuum fluctuation in a 4D spacetime due an evolving non-compact extra-dimension

Wagner Utiel
gr-qc/1209.2572

Singularity problem in f(R) model with non-minimal coupling

Qiang Xu, Sheng-yu Tan
gr-qc/1209.2619
Comments: 13 pages, 4 figures

Acceleration of particles by black hole with gravitomagnetic charge immersed in magnetic field

Ahmadjon Abdujabbarov, Arman Tursunov, Bobomurat Ahmedov, and Abdulla Kuvatov
gr-qc/1209.2680
Comments: 8 pages,7 figures, 1 table, Accepted for publication in Astrophysics & Space Science. arXiv admin note: substantial text overlap with arXiv:1110.6274 by other authors

Withholding Potentials, Absence of Ghosts and Relationship between Minimal Dilatonic Gravity and f(R) Theories

Plamen P. Fiziev
gr-qc/1209.2695
Comments: LaTeX file, 15 pages, 9 figures
Report-no: SU TH-5-09-2012

On the choice of time in the continuum limit of polymeric effective theories

Alejandro Corichi and Tatjana Vukasinac
gr-qc/1209.2752
Comments: 12 pages, no figures

New derivation of the Lagrangian of a perfect fluid with a barotropic equation of state

Olivier Minazzoli and Tiberiu Harko
gr-qc/1209.2754

Anomaly freedom of the vector modes with holonomy corrections in perturbative Euclidean loop quantum gravity

Jian-Pin Wu and Yongge Ma
gr-qc/1209.2766
Comments: 16 pages, no figures

Expansion History with Decaying Vacuum: A Complete Cosmological Scenario

J. A. S. Lima, S. Basilakos, and Joan Sola
gr-qc/1209.2802
Comments: LaTeX, 11 pages and one figure

Experimental tests of pseudo-complex General Relativity

Thomas Sch\"onenbach, Gunther Caspar, Peter O. Hess, Thomas Boller, Andreas M\"uller, Mirko Sch\"afer and Walter Greiner

gr-qc/1209.2815

Comments: submitted for publication to the International Journal of Astronomy and Astrophysics

Instability of Charged Lovelock Black Holes: Vector Perturbations and Scalar Perturbations

Tomohiro Takahashi

gr-qc/1209.2867

Comments: 35pages, 8 figures

Cosmology of hybrid metric-Palatini f(X)-gravity

Salvatore Capozziello, Tiberiu Harko, Tomi S. Koivisto, Francisco S.N. Lobo, Gonzalo J. Olmo

gr-qc/1209.2895

Comments: 17 pages

Electromagnetic helicity wavelets: a model for quasar engines?

Gerald Kaiser

gr-qc/1209.2913

Comments: 22 pages, 2 figures

Violation of First Law of Thermodynamics in f(R,T) Gravity

Mubasher Jamil, D. Momeni, R. Myrzakulov

gr-qc/1209.2916

Comments: 7 pages. arXiv admin note: text overlap with arXiv:1107.0515 by other authors

Journal-ref: Chin. Phys. Lett. Vol. 29, No. 10 (2012) 109801

Searching for higher dimensional wormhole with noncommutative geometry

Farook Rahaman, P. K. F. Kuhfittig, Saibal Ray and Safiqul Islam

gr-qc/1209.2917

Comments: 13 pages and 10 figures

Continuous Gravitational Waves from Isolated Galactic Neutron Stars in the Advanced Detector Era

Leslie Wade, Xavier Siemens, David Kaplan, Benjamin Knispel, and Bruce Allen

gr-qc/1209.2971

Comments: 7 pages, 5 figures

Surface singularities in Eddington-inspired Born-Infeld gravity

Paolo Pani, Thomas P. Sotiriou

gr-qc/1209.2972

Comments: 5 pages

Hawking radiation for non asymptotically flat dilatonic black holes using gravitational anomaly

J.C. Fabris, G.T. Marques

gr-qc/1209.2979

Comments: Latex file, 20 pages

Does the entropy of the Universe tend to a maximum?

Diego Pav\'on and Ninfa Radicella

gr-qc/1209.3004

Comments: 8 pages, 2 figures, accepted for publication on Gen. Rel. Grav

An Investigation of Equivalence between Bulk-based and Brane-based Approaches

G\"u\c{c}in Uluyazi

gr-qc/1209.3034

Comments: six pages, conference presentation

Entropy and entanglement in polymer quantization

Tommaso F. Demarie and Daniel R. Terno

gr-qc/1209.3087

Physical and Stable Closed Timelike Curves

Chiu Man Ho and Thomas J. Weiler
gr-qc/1209.3107
Comments: 7 pages, 2 figures

Interacting generalized ghost dark energy in non-flat universe

Esmaeil Ebrahimi, Ahmad Sheykhi
gr-qc/1209.3147
Comments: 9 Pages, 6 figures

Boundedness and growth for the massive wave equation on asymptotically anti-de Sitter black holes

Gustav H. Holzegel and Claude M. Warnick
gr-qc/1209.3308
Comments: 45 pages, 3 figures
Report-no: ALBERTA THY 13-12

A three-layer preon star model from exact piecewise-continuous solutions of Einstein's equations

Zoran Pazameta
gr-qc/1209.3355

Black hole formation from a null fluid in extended Palatini gravity

J. Martinez-Asencio, Gonzalo J. Olmo, D. Rubiera-Garcia
gr-qc/1209.3371
Comments: 8 pages, double column (revtex4-1), 4 figures

Quantum Cosmology: Effective Theory

Martin Bojowald
gr-qc/1209.3403
Comments: 75 pages, 3 figures, Invited Topical Review
Journal-ref: Class. Quantum Grav. 29 (2012) 213001

Three thermodynamically-based parameterizations of the deceleration parameter

Sergio del Campo, Ivan Duran, Ramon Herrera, and Diego Pavon
gr-qc/1209.3415
Comments: 22 pages, 10 figures; to be published in the Physical Review D

Conformal isometry of the lukewarm Reissner-Nordstr\"om-de Sitter spacetime

Helgi Freyr R\'unarsson
gr-qc/1209.3441

Kaluza-Klein rotating multi-black hole configurations with electromagnetic field in Einstein-Maxwell-dilaton gravity

S. Yazadjiev
gr-qc/1209.3488
Comments: 7 papges

Time-like singularities in General Relativity

Serge L. Parnovsky
gr-qc/1209.3499
Comments: 5 pages, accepted for publication in Herald of the University of Kyiv, Astronomy

The effective field theory treatment of quantum gravity

John F. Donoghue
gr-qc/1209.3511
Comments: Presented at the Sixth International School on Field Theory and Gravitation, Petropolis, Brazil, April 2012, to be published in the proceedings. 22 pages, 3 figures

Thermodynamics of Black Holes: Semi-Classical Approaches and Beyond

Sujoy Kumar Modak
gr-qc/1209.3565
Comments: Ph.D. thesis, 152 pages (including the front matter) ; Supervisor: Rabin Banerjee ; Institution: S.N. Bose National Centre for Basic Sciences, Kolkata, India ; Degree awarded on August 24, 2012 from University of Calcutta, Kolkata, India

New solutions of charged regular black holes and their stability

Nami Uchikata, Shijun Yoshida, and Toshifumi Futamase
gr-qc/1209.3567
Comments: 11 pages, 8 figures, to be published in Physical Review D

Comment on "Non-vacuum conformally flat space-times: dark energy"

Hristu Culetu
gr-qc/1209.3584
Comments: 5 pages, no figures

An Approach to Loop Quantum Cosmology Through Integrable Discrete Heisenberg Spin Chains

Christine C. Dantas
gr-qc/1209.3623
Comments: 6 pages, submitted to Foundations of Physics

Precession during merger 1: Strong polarization changes are observationally accessible features of strong-field gravity during binary black hole merger

R. O'Shaughnessy , L. London , J. Healy , D. Shoemaker
gr-qc/1209.3712
Comments: 11 figures
Report-no: LIGO DCC P1200015

Local measurement of \Lambda{} using pulsar timing arrays

Dom\'enec Espriu and Daniel Puigdom\'enech
gr-qc/1209.3724

Scalar field cosmology in phase space

Valerio Faraoni and Charles S. Protheroe
gr-qc/1209.3726
Comments: 24 pages, 3 figures, to appear in General Relativity and Gravitation

Linear perturbations of self-gravitating spherically symmetric configurations

Eliana Chaverra, N\'estor Ortiz, Olivier Sarbach
gr-qc/1209.3731
Comments: 31 pages, no figures

Varying alpha and cosmic acceleration in Brans-Dicke-BSBM theory: stability analysis and observational tests

H. Farajollahi, A. Salehi
gr-qc/1209.3763
Comments: 11 pages, 5 figures, to be published in JCAP

Energy quantization for matter orbiting black hole and Hawking radiation

Eugen Simanek
gr-qc/1209.3791

Gravity and Complexity

Yves Gaspar and Giovanni Acquaviva
gr-qc/1209.3939
Journal-ref: Eur. Phys. J. Plus (2012) 127: 65

Multihorizon regular black holes

Stefano Ansoldi and Lorenzo Sindoni

gr-qc/1209.3950
Comments: To appear in the proceedings of the 13th Marcel Grossmann Meeting, Stockholm 1-7 July 2012 (3 pages, 1 figure)
Report-no: AEI-2012-083

Power spectrum of gravitational waves from unbound compact binaries

Lorenzo De Vittori, Philippe Jetzer, Antoine Klein
gr-qc/1209.3986
Comments: 6 pages, 1 figure. Proceedings of the 9th LISA Symposium, Paris 2012

Two remarks on near-horizon geometries

James Lucietti
gr-qc/1209.4042
Comments: 5 pages

On the surface gravity of a Maxwell-dilaton black hole in string theory

C S Lopez-Monsalvo, F Nettel and H Quevedo
gr-qc/1209.4058

High Energy Physics - Experiment

Search for pair produced fourth-generation up-type quarks in pp collisions at sqrt(s)=7 TeV with a lepton in the final state

CMS Collaboration
hep-ex/1209.0471
Comments: Submitted to Phys. Lett. B
Report-no: CMS-EXO-11-099, CERN-PH-EP-2012-244

Higgs boson search at ATLAS

Scott Snyder, for the ATLAS Collaboration
hep-ex/1209.0590
Comments: 6 pages. Proceedings from Physics at the LHC 2012 (Vancouver)
Report-no: ATL-PHYS-PROC-2012-154

Heavy-Flavour Production in Pb-Pb collisions at the LHC with ALICE

Yvonne Pachmayer for the ALICE Collaboration
hep-ex/1209.0630
Comments: 4 pages, 3 figures, conference proceedings PLHC

Gravitational Waves: Sources, Detectors and Searches

Keith Riles
hep-ex/1209.0667
Comments: 79 pages, 25 figures, invited review article, to appear in Progress in Particle and Nuclear Physics

Detection of Cascades induced by Atmospheric Neutrinos in the 79-string IceCube Detector

Chang Hyon Ha for the IceCube Collaboration
hep-ex/1209.0698
Comments: 3 pages, 2 figures, CIPANP 2012 proceedings

The NOvA Experiment: Status and Outlook

R. B. Patterson, for the NOvA Collaboration
hep-ex/1209.0716
Comments: 7 pages, 13 figures, to appear in the proceedings of the XXV International Conference on Neutrino Physics and Astrophysics (Neutrino 2012)

Search for diphoton events with large missing transverse momentum in 7 TeV proton-proton collision data with the ATLAS detector

ATLAS Collaboration

hep-ex/1209.0753
Comments: 10 pages plus author list (23 pages total), 9 figures, 4 tables, submitted to Physics Letters B
Report-no: CERN-PH-EP-2012-234

Search for η and η' Invisible Decays in $J/\psi\to\phi\eta$ and $\phi\eta'$

M. Ablikim, M. N. Achasov, O. Albayrak, D. J. Ambrose, F. F. An, Q. An, J. Z. Bai, Y. Ban, J. Becker, J. V. Bennett, M. Bertani, J. M. Bian, E. Boger, O. Bondarenko, I. Boyko, R. A. Briere, V. Bytev, X. Cai, O. Cakir, A. Calcaterra, G. F. Cao, S. A. CetinB, J. F. Chang, G. Chelkov, G. Chen, H. S. Chen, J. C. Chen, M. L. Chen, S. J. Chen, Y. B. Chen, H. P. Cheng, Y. P. Chu, D. Cronin-Hennessy, H. L. Dai, J. P. Dai, D. Dedovich, Z. Y. Deng, A. Denig, I. Denysenko, M. Destefanis, W. M. Ding, Y. Ding, L. Y. Dong, M. Y. Dong, S. X. Du, J. Fang, S. S. Fang, L. Fava, F. Feldbauer, C. Q. Feng, R. B. Ferroli, C. D. Fu, J. L. Fu, Y. Gao, C. Geng, K. Goetzen, W. X. Gong, W. Gradl, M. Greco, M. H. Gu, Y. T. Gu, Y. H. Guan, A. Q. Guo, L. B. Guo, Y. P. Guo, Y. L. Han, F. A. Harris, K. L. He, M. He, Z. Y. He, et al.
hep-ex/1209.2469
Comments: 8 pages, 5 figures, and 2 tables, add more reference, changes made in introduction and conclusion

Search for high-mass resonances decaying to dilepton final states in pp collisions at a center-of-mass energy of 7 TeV with the ATLAS detector

ATLAS Collaboration
hep-ex/1209.2535
Comments: 31 pages plus author list (53 pages total), 10 figures, 15 tables, submitted to Journal of High Energy Physics
Report-no: CERN-PH-EP-2012-190

Search for low-mass Higgs and dark bosons at BaBar

Benjamin Oberhof, for the BaBar Collaboration
hep-ex/1209.2666
Comments: 4 pages, 7 figures, Proceeding to QCD 2012 conference

Study of high-multiplicity 3-prong and 5-prong tau decays at BABAR

J.P.Lees for the BaBar Collaboration
hep-ex/1209.2734
Report-no: SLAC-PUB-15047

Search for 14.4 keV solar axions from M1 transition of Fe-57 with CUORE crystals

The Cuore Collaboration
hep-ex/1209.2800
Comments: 9 pages, 4 figures, submitted to JCAP

Light vector meson production at the LHC with the ALICE detector

Elisa Incani
hep-ex/1209.2850
Comments: 2 pages, 2 figures. proceedings for the conference: Hard Probes 2012

Measurement of the Y1S, Y2S and Y3S polarizations in pp collisions at sqrt(s) = 7 TeV

CMS Collaboration
hep-ex/1209.2922
Comments: Submitted to Physical Review Letters
Report-no: CMS-BPH-11-023, CERN-PH-EP-2012-205

Quantum Correlated D Decays at SuperB

Chih-hsiang Cheng
hep-ex/1209.3035
Comments: 10 pages, 3 figures; to appear on the proceedings of the 5th International Workshop on Charm Physics (Charm2012)

Recent results on charm physics at BESIII

Hai-Bo Li
hep-ex/1209.3059
Comments: 7 pages, 9 figures, proceedings for talk at BEACH 2012, July 23-28, 2012 in Wichita, USA

CP violation in D decays

Vincenzo Vagnoni

hep-ex/1209.3152

Comments: 6 pages, 7 figures, Presented at Flavor Physics and CP Violation (FPCP 2012), Hefei, China, May 21-25, 2012

Double Spin Asymmetry of Electrons from Heavy Flavor Decays in p+p Collisions at sqrt(s)=200 GeV

A. Adare, S. Afanasiev, C. Aidala, N. N. Ajitanand, Y. Akiba, R. Akimoto, H. Al-Ta'ani, J. Alexander, K. R. Andrews, A. Angerami, K. Aoki, N. Apadula, E. Appelt, Y. Aramaki, R. Armendariz, E. C. Aschenauer, T. C. Awes, B. Azmoun, V. Babintsev, M. Bai, B. Bannier, K. N. Barish, B. Bassalleck, A. T. Basye, S. Bathe, V. Baublis, C. Baumann, A. Bazilevsky, R. Belmont, J. Ben-Benjamin, R. Bennett, A. Berdnikov, Y. Berdnikov, D. S. Blau, J. S. Bok, K. Boyle, M. L. Brooks, D. Broxmeyer, H. Buesching, V. Bumazhnov, G. Bunce, S. Butsyk, S. Campbell, P. Castera, C.-H. Chen, C. Y. Chi, M. Chiu, I. J. Choi, J. B. Choi, R. K. Choudhury, P. Christiansen, T. Chujo, O. Chvala, V. Cianciolo, Z. Citron, B. A. Cole, Z. Conesa del Valle, M. Connors, M. Csan\'ad, T. Cs\"org\H{o}, S. Dairaku, A. Datta, G. David, et al.

hep-ex/1209.3278

Comments: 385 authors, 17 pages, 15 figures, 5 tables. Submitted to Phys. Rev. D. Plain text data tables for the points plotted in figures for this and previous PHENIX publications are (or will be) publicly available at http://www.phenix.bnl.gov/papers.html

Testing the Standard Model with Kaon Decays

Matthew Moulson

hep-ex/1209.3426

Comments: 5 pages, 2 figures. Prepared for the proceedings of the Eleventh Conference on the Intersections of Particle and Nuclear Physics (CIPANP '12), St. Petersburg, FL, 29 May - 03 June 2012

Rare B0_(s) -> mu+mu- decays

P. Eerola, for the ATLAS, CDF, CMS, D0 and LHCb collaborations

hep-ex/1209.3440

Comments: Presented at CIPANP 2012: Conference on the Intersections of Particle and Nuclear Physics (2012), 29 May-3 Jun 2012, Trumpf, St Petersburg, FL (United States). To appear in the proceedings. 5 pages, 3 figures

Report-no: CMS CR-2012/223

An alternative interpretation of Belle data on \gamma-\gamma -> \eta'-\pi^+-\pi^-

D. V. Bugg

hep-ex/1209.3480

Comments: 7 pages, 2 figures

Report-no: QM R1201

Evidence for associated production of a single top quark and W boson in pp collisions at 7 TeV

CMS Collaboration

hep-ex/1209.3489

Comments: Submitted to Physical Review Letters

Report-no: CMS-TOP-11-022, CERN-PH-EP-2012-266

Identified particle pT spectra and particle contents in pp collisions measured with ALICE at the LHC

Antonio Ortiz Velasquez, for the ALICE Collaboration

hep-ex/1209.3553

Comments: 4 pages, 3 figures. Proceedings of parallel talk at the Physics at the LHC 2012. Vancouver, BC (Canada)

Search for a narrow spin-2 resonance decaying to a pair of Z vector bosons in the semileptonic final state

CMS Collaboration

hep-ex/1209.3807

Comments: Submitted to Physics Letters B

Report-no: CMS-EXO-11-102; CERN-PH-EP-2012-232

(Direct) Measurement of theta-13

R. P. Litchfield

hep-ex/1209.3884

Comments: Invited talk at Flavor Physics and CP Violation (FPCP 2012), Hefei, China, May 21-25, 2012. 5 pages, 4 figures. PDFLaTeX

Performance of the Gas Gain Monitoring system of the CMS RPC muon detector and effective working point fine tuning

S. Colafranceschi, L. Benussi, S. Bianco, L. Passamonti, D. Piccolo, D. Pierluigi, A. Russo, G. Saviano, C. Vendittozzi, M. Abbrescia, A. Aleksandrov, U. Berzano, C. Calabria, C. Carrillo, A. Colaleo, V. Genchev, P. Iaydjiev, M. Kang, K. S. Lee, F. Loddo, S. K. Park, G. Pugliese, M. Maggi, S. Shin, M. Rodozov, M. Shopova, G. Sultanov, P. Verwillingen
hep-ex/1209.3893

Measurement of D0-D0bar Mixing and CP Violation in Two-Body D0 Decays

J. P. Lees and others The BABAR Collaboration
hep-ex/1209.3896
Comments: 15 pages, 15 postscript figures, submitted to PRD

Search for the standard model Higgs boson produced in association with W and Z bosons in pp collisions at sqrt(s)=7 TeV

CMS Collaboration
hep-ex/1209.3937
Comments: Submitted to the Journal of High Energy Physics
Report-no: CMS-HIG-12-010, CERN-PH-EP-2012-253

Heavy-flavour results in pp collisions at LHC with ALICE

P. Antonioli for the ALICE Collaboration
hep-ex/1209.3975
Comments: 4 pages, 4 figures, proceeding for the Physics at LHC (PLHC) Conference, Vancouver, June 4-9 2012

Search for the rare decay KS -> mu+ mu-

LHCb collaboration: R. Aaij, C. Abellan Beteta, A. Adametz, B. Adeva, M. Adinolfi, C. Adrover, A. Affolder, Z. Ajaltouni, J. Albrecht, F. Alessio, M. Alexander, S. Ali, G. Alkhazov, P. Alvarez Cartelle, A.A. Alves Jr, S. Amato, Y. Amhis, L. Anderlini, J. Anderson, R.B. Appleby, O. Aquines Gutierrez, F. Archilli, A. Artamonov, M. Artuso, E. Aslanides, G. Auriemma, S. Bachmann, J.J. Back, C. Baesso, W. Baldini, R.J. Barlow, C. Barschel, S. Barsuk, W. Barter, A. Bates, Th. Bauer, A. Bay, J. Beddow, I. Bediaga, S. Belogurov, K. Belous, I. Belyaev, E. Ben-Haim, M. Benayoun, G. Bencivenni, S. Benson, J. Benton, A. Berezhnoy, R. Bernet, M.-O. Bettler, M. van Beuzekom, A. Bien, S. Bifani, T. Bird, A. Bizzeti, P.M. Bj\ornstad, T. Blake, F. Blanc, C. Blanks, J. Blouw, S. Blusk, A. Bobrov, V. Bocci, et al.
hep-ex/1209.4029
Comments: 13(+6) pages, 4 figures, submitted to JHEP
Report-no: CERN-PH-EP-2012-267, LHCb-PAPER-2012-023

The MINERvA Experiment - A Status Report.

Jyotsna Osta, MINERvA Collaboration.
- FERMILAB-CONF-12-510-E

Recent QCD Results from the D0.

Ashish Kumar, D0 Collaboration.
- FERMILAB-CONF-12-504-E
(submitted to AIP Conf.Proc.).

High Energy Physics - Lattice

Hadron Physics and Lattice QCD

Constantia Alexandrou
hep-lat/1208.5679
Comments: Plenary talk at CIPANP 2012 - Eleventh Conference on the Intersections of Particle and Nuclear Physics, 28 May - 3 June 2012, St. Petersburg, FL, USA

Susceptibility of the QCD vacuum to CP-odd electromagnetic background fields

Massimo D'Elia, Marco Mariti and Francesco Negro

hep-lat/1209.0722
Comments: 5 pages, 4 figures
Report-no: IFUP-TH-2012-16

Ferrara--Zumino supermultiplet and the energy-momentum tensor in the lattice formulation of 4D $\mathcal{N}=1$ SYM

Hiroshi Suzuki
hep-lat/1209.2473
Comments: 26 pages
Report-no: RIKEN-QHP-47

On the consistency of recent QCD lattice data of the baryon ground-state masses

M.F.M. Lutz and A. Semke
hep-lat/1209.2791
Comments: 7 pages, 2 figures

Continuum limit of susceptibility from strong coupling expansion: Two dimensional non-linear O(N) sigma model at N>= 3

Hirofumi Yamada
hep-lat/1209.3396
Comments: 6 pages, 5 figures

The high-temperature expansions of the higher susceptibilities for the Ising model in general dimension d

P. Butera
hep-lat/1209.3592
Comments: 25 pages, no figures
Journal-ref: Phys. Rev. E 86, 011139 (2012)

Exploring autocorrelations in two-flavour Wilson Lattice QCD using DD-HMC algorithm

Abhishek Chowdhury, Asit K. De, Sangita De Sarkar, A. Harindranath, Jyotirmoy Maiti, Santanu Mondal, Anwesa Sarkar
hep-lat/1209.3915

Gauge fixing using overrelaxation and simulated annealing on GPUs

Mario Schr\"ock and Hannes Vogt
hep-lat/1209.4008
Comments: 7 pages, 2 figures. Talk presented at the 30th International Symposium on Lattice Field Theory, June 24-29, 2012, Cairns, Australia

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High Energy Physics - Phenomenology

The Higgs and top masses: why is the higgs mass $m_H^2=m_Z m_t$?

E. Torrente-Lujan
hep-ph/1209.0474
Report-no: FISPAC-12/132,UQBAR-TH-12/718

Semi-inclusive photon-hadron production in pp and pA collisions at RHIC and LHC

Amir H. Rezaeian
hep-ph/1209.0478
Comments: 16 pages, 20 figures; v2: latex Compilation problem in Figs. 3,4 corrected

Partially (in)visible Higgs decays at the LHC

Christoph Englert, Michael Spannowsky, Chris Wymant
hep-ph/1209.0494
Comments: 8 pages, 6 figures
Report-no: IPPP/12/67, DCPT/12/134

Strong moduli stabilization and phenomenology

Emilian Dudas, Andrei Linde, Yann Mambrini, Azar Mustafayev, and Keith A. Olive
hep-ph/1209.0499
Comments: 21 pages, 7 figures
Report-no: CERN-PH-TH/2012-228, CPHT-RR069.0812, UMN-TH-3116/12, FTPI-MINN-12/28, LPT-Orsay-12-92, UH-511-1199-12

Functional Renormalization for Chiral and U_A(1) Symmetries at Finite Temperature

Yin Jiang and Pengfei Zhuang
hep-ph/1209.0507
Comments: 9 pages, 9figures

Neutrino mass characteristics in a phenomenological 3+2+1 model

N. Yu. Zysina, S. V. Fomichev, and V. V. Khruschov
hep-ph/1209.0545
Comments: 9 pages, 5 figures

Single top quark polarization at O(alpha_s) in t t-bar production at a polarized linear e^+ e^- collider

S. Groote, J.G. K\"orner, B. Mel\'c, S. Prelovsek
hep-ph/1209.0547
Comments: 8 pages including 4 figures, style file desyprocA4.cls included. Extended version of a talk given at the LC Forum Munich 2011, to be published as a DESY-123 LC review report and in EPJC
Report-no: MZ-TH/12-41

Comment on the frozen QCD coupling

B.I. Ermolaev, M. Greco, S.I. Troyan
hep-ph/1209.0564
Comments: 10 pages, 2 figures

Remark on in-medium masses of hadrons with one heavy quark

Mariusz Sadzikowski
hep-ph/1209.0580
Comments: 6 pages, 1 figure

Quasiparticles and $Z(N)-$ lines in Hot Yang-Mills theories

Marco Ruggieri, Paolo Alba, Paolo Castorina, Salvatore Plumari, Claudia Ratti and Vincenzo Greco
hep-ph/1209.0589
Comments: 7 pages, 2 figures. Talk given at QCD@Work 2012, 18-21 June 2012, Lecce (Italy)

Shear viscosity and chemical equilibration of the QGP

Salvatore Plumari, Armando Puglisi, Maria Colonna, Francesco Scardina and Vincenzo Greco
hep-ph/1209.0601
Comments: 15 pages, 10 figures, Invited Talk given by S. Plumari at the 11th International Conference on Nucleus-Nucleus Collisions (NN2012), San Antonio, Texas, USA, May 27-June 1, 2012. To appear in the NN2012 Proceedings in Journal of Physics: Conference Series (JPCS)

Holographic Description of the QCD Phase Diagram and Out of Equilibrium Dynamics

Nick Evans
hep-ph/1209.0626
Comments: 11 pages, 8 figures, Presented at the International Conference on New Frontiers in Physics, ICFP 2012, 10-16 June 2012 Kolymbari, Crete, Greece
Report-no: SHEP-12-23

A next-to-next-to-leading order calculation of soft-virtual cross sections

Daniel de Florian and Javier Mazzitelli
hep-ph/1209.0673
Comments: 25 pages, 4 figures

Transverse parton distribution functions at next-to-next-to-leading order: the quark-to-quark case

Thomas Gehrmann, Thomas L\"ubbert and Li Lin Yang
hep-ph/1209.0682
Comments: 4 pages, 1 figure

Beta decays in the LHC era: from ultracold neutrons to colliders

Mart\'in Gonz\'alez-Alonso
hep-ph/1209.0689
Comments: Proceedings of CIPANP 2012 (3 pages)
Report-no: NPAC-12-13

Meson production in two-photon interactions at CERN - LHC

V.P. Goncalves, D. T. da Silva, W. K. Sauter
hep-ph/1209.0701
Comments: 5 pages, 1 figure, 4 tables

The U(1) symmetry of the non-tribimaximal pattern in the degenerate mass spectrum case of the neutrino mass matrix

E.I. Lashin , N. Chamoun , S. Nasri
hep-ph/1209.0707
Comments: latex, 1 table, 22 pages. arXiv admin note: text overlap with arXiv:1206.4754

Single spin asymmetry in high energy QCD

Yuri V. Kovchegov, Matthew D. Sievert
hep-ph/1209.0727
Comments: 10 pages, 6 figures, proceedings of the QCD Evolution Workshop, May 14 - 17, 2012, Thomas Jefferson National Accelerator Facility, Newport News, VA

A Dispersive Treatment of $K_{\ell4}$ Decays

Gilberto Colangelo, Emilie Passemar, Peter Stoffer
hep-ph/1209.0755
Comments: 4 pages, talk given by PS at MESON2012 - 12th International Workshop on Meson Production, Properties and Interaction, Krak\'ow, Poland, 31 May - 5 June 2012
Report-no: LA-UR-12-23703

Jet Charge at the LHC

David Krohn, Tongyan Lin, Matthew D. Schwartz, Wouter J. Waalewijn
hep-ph/1209.2421
Comments: 5 pages, 8 figures

On the interpretation of IceCube cascade events in terms of the Glashow resonance

Atri Bhattacharya, Raj Gandhi, Werner Rodejohann and Atsushi Watanabe
hep-ph/1209.2422
Comments: 4 pages, 2 figures

A 130 GeV Gamma Ray Signal from Supersymmetry

Bibhushan Shakya
hep-ph/1209.2427
Comments: 16 pages, 3 figures

Production of thermal photons in a simple chiral-hydrodynamic model

J. Peralta-Ramos, M. S. Nakwacki
hep-ph/1209.2470
Comments: 5 pages, 2 figures. To appear in Int. J. Mod. Phys.: Conference Series, Proceedings of IWARA 2011

Gravity Mediation Retrofitted

Milton Bose and Michael Dine
hep-ph/1209.2488
Comments: 16 pages
Report-no: SCIPP 12/12

Production of a gluon with the exchange of three reggeized gluons in the Lipatov effective action approach

M. A. Braun, M. Yu. Salykin, S. S. Pozdnyakov and M. I. Vyazovsky
hep-ph/1209.2490
Comments: 22 pages, 9 figures; submitted to Eur.Phys.Jour. C

New insights into the spin structure of the nucleon

V. Bernard, E. Epelbaum, H. Krebs, U.-G. Mei{\ss}ner
hep-ph/1209.2523
Comments: 13 pages, 6 figures

Towards testing a two-Higgs-doublet model with maximal CP symmetry at the LHC: construction of a Monte Carlo event generator

J. Brehmer, V. Lendermann, M. Maniatis, O. Nachtmann, H.-C. Schultz-Coulon and R. Stamen
hep-ph/1209.2537

Constraints on Hidden Photon Models from Electron g-2 and Hydrogen Spectroscopy

Motoi Endo, Koichi Hamaguchi, Go Mishima
hep-ph/1209.2558
Comments: 18 pages, 2 figures, 1 table
Report-no: UT-12-31; IPMU12-172

Finite-t and target mass corrections to deeply virtual Compton scattering

V. M. Braun, A. N. Manashov, B. Pirnay
hep-ph/1209.2559
Comments: 4 pages, 4 figures

Eluding the Gravitino Overproduction in Inflaton Decay

Kazunori Nakayama, Fuminobu Takahashi, Tsutomu T. Yanagida
hep-ph/1209.2583
Comments: 19 pages, 2 figures
Report-no: TU-920; IPMU12-0171

A Mathematica interface to NNPDFs

Nathan P. Hartland, Emanuele R. Nocera
hep-ph/1209.2585
Comments: 4 pages, 5 figures, to appear in the proceedings of the 16th International Conference in Quantum Chromodynamics (QCD2012), Montpellier July 2012

Correlations of the elements of the neutrino mass matrix

Walter Grimus and Patrick Otto Ludl
hep-ph/1209.2601
Comments: 31 pages, 129 figures
Report-no: UWThPh-2012-30

High-energy behavior of hadronic total cross sections from lattice QCD

E. Meggiolaro, M. Giordano, N. Moretti
hep-ph/1209.2628
Comments: Talk given (by E. Meggiolaro) at the "16th High-Energy Physics International Conference in Quantum ChromoDynamics" (QCD 12), Montpellier (France), 2-6 July 2012; 4 pages, 1 figure, 2 tables
Report-no: IFUP-TH/2012-17

Vacuum birefringence in strong magnetic fields: (I) Photon polarization tensor with all the Landau levels

Koichi Hattori and Kazunori Itakura
hep-ph/1209.2663
Comments: 47 pages, 7 figures
Report-no: KEK-TH-1567

Muon conversion to electron in nuclei in type-I seesaw models

Rodrigo Alonso, Mikael Dhen, M. B. Gavela, Thomas Hambye
hep-ph/1209.2679
Comments: 27 pages 14 figures

Light stop/sbottom pair production searches in the NMSSM

Xiao-Jun Bi, Qi-Shu Yan and Peng-Fei Yin
hep-ph/1209.2703
Comments: 40 pages, 18 figs

Status of non-standard neutrino interactions

Tommy Ohlsson
hep-ph/1209.2710
Comments: 38 pages, 11 figures

The Electroweak Fit of the Standard Model after the Discovery of a New Boson at the LHC

M. Baak, M. Goebel, J. Haller, A. Hoecker, D. Kennedy, R. Kogler, K. Moenig, M. Schott, J. Stelzer
hep-ph/1209.2716
Comments: 11 pages, 5 figures, to be submitted to EPJ-C
Report-no: DESY-12-154

Three-mass triangle integrals and single-valued polylogarithms

Federico Chavez and Claude Duhr
hep-ph/1209.2722
Comments: 31 pages, 2 figures

Ultraviolet Completions of Axigluon Models and Their Phenomenological Consequences

Mirjam Cveti\v{c}, James Halverson, Paul Langacker
hep-ph/1209.2741
Comments: 40 pages. v2: references added, typos corrected
Report-no: UPR-1244-T; NSF-KITP-12-171

TPEcalc: a program for calculation of two-photon exchange amplitudes

Dmitry Borisyuk and Alexander Kobushkin
hep-ph/1209.2746
Comments: 7 pages, no figures

Physics potential of neutrino oscillation experiment with a far detector in Oki Island along the T2K baseline

Kaoru Hagiwara, Takayuki Kiwanami, Naotoshi Okamura, Ken-ichi Senda
hep-ph/1209.2763
Comments: 35 pages, 15 figures
Report-no: KEK-TH-1568

Sivers Asymmetry in $e+p^\uparrow \rightarrow e+J/\psi+X$

Asmita Mukherjee
hep-ph/1209.2774
Comments: Talk given at the QCD Evolution Workshop, May 14-17, 2012, Jefferson Lab, Newport News, USA

The separation of the chiral and deconfinement phase transitions in the curved space-time

S.Sasagawa and H.Tanaka
hep-ph/1209.2782
Comments: 14 pages, 14 figures
Report-no: RUP-12-9

MadGolem: automating NLO calculations for New Physics

David Lopez-Val, Dorival Goncalves-Netto, Kentarou Mawatari, Tilman Plehn, Ioan Wigmore
hep-ph/1209.2797
Comments: Prepared for the proceedings to Loops and Legs in Quantum Field Theory - 11th DESY Workshop on Elementary Particle Physics, April 15-20, 2012, Wernigerode, Germany

The Spin Structure of the Nucleon

Christine A. Aidala, Steven D. Bass, Delia Hasch, Gerhard K. Mallot
hep-ph/1209.2803
Comments: Review, 41 pages, 21 figures

Fundamental Physics Explored with High Intensity Laser

T. Tajima and K. Homma
hep-ph/1209.2822
Comments: 46 pages, 5 figures

EUROnu-WP6 2010 Report

S. K. Agarwalla, E. Akhmedov, M. Blennow, P. Coloma, A. Donini , E. Fernandez-Martinez, C. Giunti, J. J. Gomez-Cadenas, M.C. Gonzalez-Garcia, P. Hernandez , P. Huber, M. Laveder, T. Li, A. Longhin, J. Lopez-Pavon, M. Maltoni, D. Meloni, O. Mena, J. Menendez, M. Mezzetto, P. Migliozzi, T. Ohlsson, C. Orme, S. Pascoli, J. Salvado, T. Schwetz, L. Scotto-Lavina, J. Tang, F. Terranova, W. Winter and H. Zhang
hep-ph/1209.2825
Comments: 82 pages, 51 eps figures
Report-no: EURONU-WP6-11-34}

The LHC state at 125.5 GeV and FNAL data as an evidence for the existence of the new class of particles -- W-hadrons

Boris A. Arbuzov
hep-ph/1209.2831
Comments: 6 pages, 3 figures. arXiv admin note: substantial text overlap with arXiv:1202.4885

Numerical evaluation of NLO multiparton processes

S. Becker, D. Goetz, C. Reuschle, C. Schwan and S. Weinzierl
hep-ph/1209.2846
Comments: 10 pages, talk given at Loops and Legs 2012

Forward dihadron correlations in deuteron-gold collisions with the Gaussian approximation of JIMWLK

T. Lappi, H. M\"antysaari
hep-ph/1209.2853
Comments: 15 pages, 12 figures, RevTeX

A comparative study of jet substructure taggers

Paloma Quiroga-Arias, Sebastian Sapeta
hep-ph/1209.2858
Comments: 16 pages, 8 figures

Thermal right-handed neutrino self-energy in the non-relativistic regime

M. Laine
hep-ph/1209.2869
Comments: 11 pages, presented at the workshop Frontiers in Perturbative Quantum Field Theory, 10-12 September 2012, Bielefeld, Germany

On the strangeness content of the nucleon

J. M. Alarcon, L. S. Geng, J. Martin Camalich, J. A. Oller
hep-ph/1209.2870
Comments: 7 pages

Minimal seesaw models and minimal lepton flavor violation

Audrey Deg\'ee
hep-ph/1209.2874
Comments: 6 pages, 4 figures, 3rd Young Researchers Workshop: "Physics Challenges in the LHC Era " Frascati, May 7 and 10, 2012
Journal-ref: Frascati Physics Series Vol. LIV (2012), pp. 31-36

Magnetic moments of heavy baryons in the bag model reexamined

Andrius Bernotas and Vytautas \v{S}imonis
hep-ph/1209.2900
Comments: 27 pages, 10 tables (3 in the Appendix), 31 reference with DOI links

ChPT calculations of pion formfactors

Karol Kampf
hep-ph/1209.2902
Comments: 4 pages, 2 figures, presented at 16th International QCD Conference (QCD12), Montpellier, France, July 2-7, 2012

Summary on m_{c,b}(m_{c,b}) and precise f_{D_(s),B_(s)} from heavy-light QCD spectral sum rules

Stephan Narison
hep-ph/1209.2925
Comments: 4 pages, 5 figures, 2 tables. Talk given at the 16th International Conference on QCD (QCD12), 2-6th july 2012, Montpellier (France)

Operator Product Expansion with analytic QCD in tau decay physics

Gorazd Cveti\v{c}, Cristi\'an Villavicencio
hep-ph/1209.2953
Comments: 15 pages, 5 figures
Report-no: USM-TH-305

Chiral-Symmetry-Violating Effects and Near-Maximal Mixing of Scalar Gluonium and Quark Mesons

T.G. Steele, D. Harnett, R.T. Kleiv, K. Moats
hep-ph/1209.2994
Comments: 4 pages, 2 figures. Presentation given by T.G. Steele at QCD12 conference, Montpellier, France, July 2-6 2012

Thermalization of the quark-gluon plasma and dynamical formation of Bose-Einstein Condensate

Jinfeng Liao
hep-ph/1209.2998
Comments: 10 pages, 2 figures. Talk given at the 11th International Conference on Nucleus-Nucleus Collisions (NN2012), San Antonio, Texas, USA, May 27-June 1, 2012. To appear in the NN2012 Proceedings in Journal of Physics: Conference Series (JPCS)

Calculating the Charge of a Jet

Wouter J. Waalewijn
hep-ph/1209.3019
Comments: 15 pages, 11 figures

Effective Theory of a Light Dilaton

Zackaria Chacko and Rashmish K. Mishra
hep-ph/1209.3022
Comments: 22 pages

Global fit to three neutrino mixing: critical look at present precision

M. C. Gonzalez-Garcia, Michele Maltoni, Jordi Salvado, Thomas Schwetz
hep-ph/1209.3023
Comments: 22 pages, 7 figures. v2: typos corrected. Updated results will be provided at http://www.nu-fit.org
Report-no: IFT-UAM/CSIC-12-88; YITP-SB-12-33

P stabilizes dark matter and with CP can predict leptonic phases

Ravi Kuchimanchi
hep-ph/1209.3031

Comment on the evidence of the Higgs boson at LHC

Paolo Cea
hep-ph/1209.3106
Comments: 9 pages, 1 figure

Single-spin asymmetries in inclusive DIS and multi-parton correlations in the nucleon

A. Metz, D. Pitonyak, A. Schaefer, M. Schlegel, W. Vogelsang, J. Zhou

hep-ph/1209.3138

Comments: 15 pages

Diphoton production at Next-to-Next-to-Leading-Order

Leandro Cieri

hep-ph/1209.3143

Comments: 4 pages, 3 figures, to appear in the proceedings of the 16th International Conference in Quantum Chromodynamics (QCD2012), Montpellier, July 2012. arXiv admin note: text overlap with arXiv:1207.3252

The Color Glass Condensate and some applications

D. N. Triantafyllopoulos

hep-ph/1209.3183

Comments: 7 pages, 4 figures, based on talk given at Excited QCD, Peniche, Portugal, 6-12 May, 2012

An exploration of $B_s \to J/\psi s\bar{s}$

Robert Knegjens

hep-ph/1209.3206

Comments: 6 pages, 3 figures, invited talk at the 4th Workshop on Theory, Phenomenology and Experiments in Heavy Flavour Physics, Capri, Italy, 11-13 June 2012, to appear in the Proceedings

Uncertainties in pion and kaon fragmentation functions

Manuel Epele, Romina Llubaroff, Rodolfo Sassot and Marco Stratmann

hep-ph/1209.3240

Comments: 12 pages, 11 figures

Screening of the Coulomb potential in superstrong magnetic field: atomic levels and spontaneous production of positrons

M. I. Vysotsky

hep-ph/1209.3242

Comments: 22 pages, 7 figures, 6 tables. arXiv admin note: substantial text overlap with arXiv:1112.1891

Millicharged neutrino with anomalous magnetic moment in rotating magnetized matter

Alexander Studenikin, Ilya Tokarev

hep-ph/1209.3245

Comments: 17 pages

Transverse Polarization of the Nucleon in Parton Picture

Xiangdong Ji, Xiaonu Xiong, Feng Yuan

hep-ph/1209.3246

Comments: 10 pages

Resonance at 125 GeV: Higgs or Dilaton/Radion?

Zackaria Chacko, Roberto Franceschini, Rashmish K. Mishra

hep-ph/1209.3259

Comments: 39 pages, 4 figures

A Higgslike Dilaton

Brando Bellazzini, Csaba Cs\'aki, Jay Hubisz, Javi Serra and John Terning

hep-ph/1209.3299

Comments: 30 pages, 4 figures

Tests of the Electroweak Standard Model

Jens Erler

hep-ph/1209.3324

Comments: 12 pages, 8 figures, plenary talk presented at the 18th International Symposium on Particles, Strings and Cosmology (PASCOS 2012), Merida, Yucatan, Mexico, June 3-8, 2012

Constituent mass dependence of transport coefficients in a quark-gluon plasma
C.E.Coleman-Smith, B.Muller
hep-ph/1209.3328

Nuclear shadowing in deep inelastic scattering on nuclei: a closer look
F. Carvalho, V.P. Goncalves, F.S. Navarra and E.G. de Oliveira
hep-ph/1209.3340
Comments: 16 pages, 4 figures

A calculation for vector dark matter direct detection
Natsumi Nagata
hep-ph/1209.3363
Comments: Contribution to the Proceedings of PASCOS2012 conference; 6 pages and 6 figures

Charmed B(B_{s}) decays involving a light tensor meson in PQCD approach
Zhi-Tian Zou, Xin Yu and Cai-Dian Lu
hep-ph/1209.3369
Comments: 4 pages

Self-Organizing Neutrino Mixing Matrix
Ernest Ma
hep-ph/1209.3374
Comments: 6 pages, no figure
Report-no: UCRHEP-T523 (September 2012)

Semileptonic D decays up to speed
Giulia Ricciardi
hep-ph/1209.3386
Comments: 5 pages, no figures

Extraction of Meson Resonances from Three-pions Photo-production Reactions
S. X. Nakamura , H. Kamano , T.-S. H. Lee , T. Sato
hep-ph/1209.3402
Comments: 17 pages, 12 figures

On Neutrino Flavor States
Chiu Man Ho
hep-ph/1209.3453
Comments: 13 pages

Comments on ‘Systematics of radial and angular-momentum Regge trajectories of light non-strange $q\bar q$ states’, Masjuan, Arriola and Broniowski [arXiv:1203.4782,arXiv:1208.4477]
D.V. Bugg
hep-ph/1209.3481
Comments: 11 pages, 1 figure, 1 Table
Report-no: QM D1202

Transport properties of hot gluonic matter
Marcus Bluhm , Marlene Nahrgang
hep-ph/1209.3507
Comments: Sep 2012. 6 pages, 2 figures. Proceedings of the International Meeting "Excited QCD", Peniche, Portugal, 06 - 12 May 2012

Skyrmions with vector mesons in the hidden local symmetry approach
Yong-Liang Ma, Ghil-Seok Yang, Yongseok Oh, Masayasu Harada
hep-ph/1209.3554
Comments: REVTeX, 17 pages, 10 figures

Standard model with Lorentz and CPT violations in Finsler spacetime
Zhe Chang, Sai Wang

hep-ph/1209.3574
Comments: 15 pages, no figure

Vafa-Witten theorem, vector meson condensates and magnetic-field-induced electromagnetic superconductivity of vacuum

M. N. Chernodub
hep-ph/1209.3587
Comments: 2 pages

Distinguishing Z' models with polarised top pairs

L. Basso, K. Mimasu, S.Moretti
hep-ph/1209.3622
Comments: Proceedings submission for parallel talk given at 'Rencontres de Blois' conference, France, June 2012. 5 pages, 1 figure
Report-no: preprint SHEP-12-24

Top quark physics in Vector Color-Octet Model

Sukanta Dutta, Ashok Goyal, Mukesh Kumar
hep-ph/1209.3636
Comments: 22 pages, 18 figures

Dynamical mass scale and approximate scaling symmetry in the Higgs sector

Zygmunt Lalak
hep-ph/1209.3711
Comments: 10 pages, no figures
Report-no: CERN-PH-TH/2012-235

From motives to differential equations for loop integrals

S. M\"uller-Stach, S. Weinzierl, R. Zayadeh
hep-ph/1209.3714
Comments: 7 pages, talk given at Loops and Legs 2012

Pion transitions from \chi_{cJ} to \eta_c

M. B. Voloshin
hep-ph/1209.3716
Comments: 6 pages
Report-no: FTPI-MINN-12/30; UMN-TH-3118/12

The classification of two-loop integrand basis in pure four-dimension

Bo Feng, Rijun Huang
hep-ph/1209.3747
Comments: 52 pages, 9 figures

Constraints for non-standard interaction epsilon_{e tau}V_e from nu_e appearance in MINOS and T2K

Joao A. B. Coelho, Tomas Kafka, W. Anthony Mann, Jacob Schneps, and Ozgur Altinok
hep-ph/1209.3757
Comments: 11 pages, 3 figures

Power Corrections to Event Shapes with Mass-Dependent Operators

Vicent Mateu, Iain W. Stewart, Jesse Thaler
hep-ph/1209.3781
Comments: 25 pages, 7 tables, 8 figures
Report-no: IFIC/12-66, LPN12-099, MIT-CTP 4394

Nonrelativistic effective field theory of unstable top

Alexander A. Penin, Jan H. Piclum
hep-ph/1209.3821
Comments: 9 pages, 4 figures, talk given at the conference "Loops and Legs in Quantum Field Theory", Wernigerode, Germany, 15-20 April 2012
Report-no: SFB/CPP-12-68, TTK-12-38, TUM-HEP-856/12

Sneutrino Dark Matter in Low-scale Seesaw Scenarios

Valentina De Romeri and Martin Hirsch
hep-ph/1209.3891
Comments: 32 pages, 14 figures

Definition and Evolution of Transverse Momentum Distributions

Miguel G. Echevarria, Ahmad Idilbi, Ignazio Scimemi
hep-ph/1209.3892
Comments: 15 pages. Proceedings of QCD Evolution Workshop, May 14-17 2012, JLAB

Contribution of N* and Delta* resonances in K* Sigma(1190) photoproduction

Sang-Ho Kim, Seung-il Nam, Atsushi Hosaka, Hyun-Chul Kim
hep-ph/1209.3901
Comments: 4 pages, 7 figures, Talk given at the 20th International IUPAP Conference on Few-Body Problems in Physics, 20 ~ 25 August 2012, Fukuoka, Japan
Report-no: INHA-NTG-04/2012, KIAS-P12053

Interaction of the pseudoscalar glueball with (pseudo)scalar mesons and nucleons

Walaa. I. Eshraim, Stanislaus Janowski, Antje Peters, Klaus Neuschwander, and Francesco Giacosa
hep-ph/1209.3976
Comments: Presented at the Workshop Excited QCD 2012, 6-12 May 2012, Peniche (Portugal). 7 pages, 1 Table

QCD and Relativistic $O(\alpha_{s}v^2)$ Corrections to Hadronic Decays of Spin-Singlet Heavy Quarkonia h_c, h_b and η_b

Jin-Zhao Li, Yan-Qing Ma, Kuang-Ta Chao
hep-ph/1209.4011
Comments: 27 pages, 8 figures

Combined constraints on CP-violation in the Standard Model and beyond

S\'ebastien Descotes-Genon
hep-ph/1209.4016
Comments: 6 pages, 3 figures. To appear in the proceedings of Flavour Physics and CP Violation (May 2012, Hefei, China) and 4th Workshop on Theory, Phenomenology and Experiments in Flavour Physics (June 2012, Capri, Italy)

The status of the search for low mass WIMPs: 2012

David B. Cline
hep-ph/1209.4037
Comments: 8 pages, 6 figures

Minimal Radiative Neutrino Mass Mechanism for Inverse Seesaw Models

P. S. Bhupal Dev, Apostolos Pilaftsis
hep-ph/1209.4051
Comments: 9 pages, 6 figures
Report-no: MAN/HEP/2012/14

High Energy Physics - Theory

Supersymmetric theories on squashed five-sphere

Yosuke Imamura
hep-th/1209.0561
Comments: 19 pages, no figure
Report-no: TIT/HEP-620

N=2 Moonshine

Tohru Eguchi, Kazuhiro Hikami
hep-th/1209.0610
Comments: 18 pages

Perturbed WZW models and N=(2,2) supersymmetric sigma models with complex structure

A. Rezaei-Aghdam and M. Sephid
hep-th/1209.0641
Comments: 8 page

Six-loop Konishi anomalous dimension from the Y-system

Sebastien Leurent, Didina Serban and Dmytro Volin
hep-th/1209.0749
Comments: 4 pages, 1 figure

Bipartite Riemann-Finsler geometry and Lorentz violation

Alan Kostelecky, Neil Russell, and Rhondale Tso
hep-th/1209.0750
Comments: 6 pages, accepted for publication in Physics Letters B
Journal-ref: Phys.Lett.B716:470-474,2012
Report-no: IUHET 569, August 2012

Aging Logarithmic Conformal Field Theory : a holographic view

Seungjoon Hyun, Jaehoon Jeong and Bom Soo Kim
hep-th/1209.2417
Comments: 1+26 pages, 15 figures
Report-no: CQUeST-2012-0550; TAUP-2955/12

Supersymmetric Partition Functions and a String Theory in 4 Dimensions

Cumrun Vafa
hep-th/1209.2425
Comments: 40 pages

Bose-Fermi duality and entanglement entropies

Matthew Headrick, Albion Lawrence, Matthew M. Roberts
hep-th/1209.2428
Comments: 36 pages, 5 figures
Report-no: BRX-TH-656; NSF-KITP-12-096

Notes On Super Riemann Surfaces And Their Moduli

Edward Witten
hep-th/1209.2459
Comments: 118 pp

Ultraviolet Cancellations in Half-Maximal Supergravity as a Consequence of the Double-Copy Structure

Zvi Bern, Scott Davies, Tristan Dennen and Yu-tin Huang
hep-th/1209.2472
Comments: 32 pages, revtex, 6 figures
Report-no: UCLA/12/TEP/106; MCTP-12-21

Quantization of Higher Abelian Gauge Theory in Generalized Differential Cohomology

Richard J. Szabo
hep-th/1209.2530
Comments: 58 pages; Contribution to the Proceedings of the 7th International Conference on Mathematical Methods in Physics, Rio de Janeiro, Brazil, April 16-20, 2012; to be published in Proceedings of Science
Report-no: HWM-12-13; EMPG-12-20; ESI-2381

Chern-Simons diffusion rate in a holographic Yang-Mills theory

Ben Craps, Carlos Hoyos, Piotr Surowka and Pieter Taels
hep-th/1209.2532
Comments: 14 pages
Report-no: TAUP-2854/12; NSF-KITP-12-169

Torsion and Supersymmetry in Omega-background

Katsushi Ito, Hiroaki Nakajima and Shin Sasaki
hep-th/1209.2561
Comments: 26 pages
Report-no: TIT/HEP-621

N-points correlator for the Gaudin's model realization of a Quantum Hall Fluid

Wagner Utiel
hep-th/1209.2573
Comments: The paper has been withdraw by the author because a new version is been written to better emphasize in this review the use of the off-shell Bethe ansatz approach to obtain solutions of the KZ equation in a more easy way than the approach used in Hou et all(arXiv:hep-th/0210173)

Lifshitz holography for undoped Weyl semimetals

Umut Gursoy, Vivian Jacobs, Erik Plauschinn, Henk Stoof, Stefan Vandoren
hep-th/1209.2593
Comments: 60 pages, 19 figures

Remarks on effective action and entanglement entropy of Maxwell field in generic gauge

Sergey N. Solodukhin
hep-th/1209.2677
Comments: 15 pages
Report-no: NSF-KITP-12-167

Origin of the blackhole information paradox

Ram Brustein
hep-th/1209.2686
Comments: 23 pages, one figure

Exact Solutions and Black Hole Stability in Higher Dimensional Supergravity Theories

Sean Stotyn
hep-th/1209.2726
Comments: Ph.D. Thesis, 152 pages, 7 figures

A 6D standing wave Braneworld

L. J. S. Sousa, J. E. G. Silva, C. A. S. Almeida
hep-th/1209.2727
Comments: 19 pages, 4 figures

Julia-Toulouse approach to (d+1)-dimensional bosonized Schwinger model with an application to large N QCD

M. S. Guimaraes, R. Rougemont, C. Wotzasek, C. A. D. Zarro
hep-th/1209.2751
Comments: 6 pages

A Soliton and a Black Hole are in Gauss-Bonnet gravity. Who wins?

Anson W.C. Wong, Robert B. Mann
hep-th/1209.2842
Comments: 14 pages, 7 figures, 1 table

Non-AdS holography in 3-dimensional higher spin gravity - General recipe and example

H. Afshar, M. Gary, D. Grumiller, R. Rashkov and M. Riegler
hep-th/1209.2860
Comments: 23pp
Report-no: TUW-12-22

Pragmatic SAE procedure in the Schrodinger equation for the inverse-square-like potentials

Teimuraz Nadareishvili and Anzor Khelashvili
hep-th/1209.2864
Comments: 21 pages

Pohlmeyer reduction for superstrings in AdS space
B. Hoare and A. A. Tseytlin
hep-th/1209.2892
Comments: 54 pages
Report-no: Imperial-TP-BH-2012-02

On the $\star$-product quantization and the Duflo map in three dimensions
Luigi Rosa and Patrizia Vitale
hep-th/1209.2941

Higher dimensional charged $f(R)$ black holes
Ahmad Sheykhi
hep-th/1209.2960
Comments: 13 pages, 7 figures
Journal-ref: Phys Rev D 86 (2012) 024013

Conformal blocks of Chiral fields in N=2 SUSY CFT and Affine Laumon Spaces
V. Belavin
hep-th/1209.2992
Comments: 15 pages

All G_2 invariant critical points of maximal supergravity
Andrea Borghese, Adolfo Guarino, Diederik Roest
hep-th/1209.3003
Comments: 4 pages

The Importance of Being Rigid: D6-Brane Model Building on T6/Z2xZ6' with Discrete Torsion
Gabriele Honecker, Martin Ripka and Wieland Staessens
hep-th/1209.3010
Comments: 1+86 pages
Report-no: MZ-TH/12-42

Non-Abelian Tensor Towers and (2,0) Superconformal Theories
Federico Bonetti, Thomas W. Grimm and Stefan Hohenegger
hep-th/1209.3017
Comments: 54 pages, 5 figures

Comments on a-maximization from gauged supergravity
Phillip Szepietowski
hep-th/1209.3025

Fermionic vacuum polarization by a flat boundary in cosmic string spacetime
E. R. Bezerra de Mello, A. A. Saharian, S. V. Abajyan
hep-th/1209.3030
Comments: 22 pages, 3 figures

A Holographic Holographic Bound and the Black Hole S-Matrix
Michael Gary
hep-th/1209.3040
Comments: 11 pages
Report-no: TUW-12-24

ϕ^6 kink scattering
Stephen W. Goatham
hep-th/1209.3055
Comments: 10 pages, 4 figures

New representation of the nonlocal ghost-free gravity theory
A. O. Barvinsky and Yu. V. Gusev
hep-th/1209.3062
Comments: 10 pages, 1 figure, LaTeX

Massive photons and Dirac monopoles: electric condensate and magnetic confinement
M. S. Guimaraes, R. Rougemont, C. Wotzasek, C. A. D. Zarro
hep-th/1209.3073
Comments: 5 pages

The Quantum State of Inflationary Perturbations
Jerome Martin
hep-th/1209.3092
Comments: 9 pages, 2 figures; to appear in the Proceedings of COSGRAV-2012 (International Conference on Modern Perspectives of Cosmology and Gravitation), Indian Statistical Institute, Kolkata, India, February 7-11, 2012

Semiclassical energy of the $AdS_4 \times \mathbb{CP}^3$ folded string
Matteo Beccaria, Guido Macorini, CarloAlberto Ratti and Saulius Valatka
hep-th/1209.3205
Comments: Proceedings of International Conference on Integrable Systems and Quantum symmetries - ISQS-20 (2012)

Spontaneous Supersymmetry Breaking Induced by Vacuum Condensates
Antonio Capolupo and Marco Di Mauro
hep-th/1209.3229
Comments: 5 pages

A note on supersymmetric AdS_6 solutions of massive type IIA supergravity
Achilleas Passias
hep-th/1209.3267
Comments: 18 pages

Constructing holographic spacetimes using entanglement renormalization
Brian Swingle
hep-th/1209.3304

Equivalence Principle Violation in Vainshtein Screened Two-Body Systems
Takashi Hiramatsu, Wayne Hu, Kazuya Koyama and Fabian Schmidt
hep-th/1209.3364
Comments: 18 pages, 9 figures

RG flows in d dimensions, the dilaton effective action, and the a-theorem
Henriette Elvang and Timothy M. Olson
hep-th/1209.3424
Comments: 31 pages, 7 figures

Emergent Universe Scenario via Quintom Matter
Yi-Fu Cai, Mingzhe Li, Xinmin Zhang
hep-th/1209.3437
Comments: 8 pages, 4 figures. Comments are welcome

Matter ouside a Static Higher-dimensional Black Hole
Marek Rogatko
hep-th/1209.3478
Comments: 14 pages, RevTex, to be published in Phys.Rev.D15

Scaling Dimensions in AdS/QCD and the Gluon Field Strength Propagator
Joshua W. Powell
hep-th/1209.3552
Comments: 10 pages, 3 figures

Fermi-like Liquid From Einstein-DBI-Dilaton System
Shesansu Sekhar Pal
hep-th/1209.3559
Comments: 1+23 pages, LATEX

Scalar-Graviton Scattering in Noncommutative Space and Deformed Newton Gravity

A. Jahan, A. Parvishi
hep-th/1209.3560
Comments: 5 pages, no figure
Journal-ref: Rom. J. Phys 56 (2011) 851

Note About Hamiltonian Formalism for General Non-Linear Massive Gravity Action in Stuckelberg Formalism

J. Kluson
hep-th/1209.3612
Comments: 17 pages

Dilatons and the Dynamical Collapse of Charged Scalar Field

Anna Nakonieczna and Marek Rogatko
hep-th/1209.3614
Comments: 10 pages, 8 figures, RevTex, to be published in General Relativity and Gravitation

Angular profile of Particle Emission from a Higher-dimensional Black Hole: Analytic Results

Panagiota Kanti and Nikolaos Pappas
hep-th/1209.3616
Comments: 27 pages, Latex2e file, 4 figures

Functional renormalization with fermions and tetrads

Pietro Don\'a and Roberto Percacci
hep-th/1209.3649
Comments: 28 pages, 4 figures

Global D-brane models with stabilised moduli and light axions

Michele Cicoli
hep-th/1209.3740
Comments: 6 pages; Proceedings of PASCOS 2012, 3-8 June 2012, Merida, Mexico

Subluminal Galilean Genesis

Paolo Creminelli, Kurt Hinterbichler, Justin Khoury, Alberto Nicolis, Enrico Trincherini
hep-th/1209.3768
Comments: 18 pages, 1 figure

Maximal Nine Dimensional Supergravity, General gaugings and the Embedding Tensor

JJ. Fernandez-Melgarejo, T. Ortin, E. Torrente-Lujan
hep-th/1209.3774
Comments: XVIIth European workshop on String theory 2011, Padua, Italy, 4-9 september 2011
Journal-ref: Fortschr.Phys.,60:1012-1018(2012)
Report-no: FT-UM-2012-765

Pure spinor superstring in AdS_4 x CP^3 with unconstrained ghosts

Marisa Bonini, Alessio Camobreco
hep-th/1209.3777
Comments: 23 pages, 2 figures

Green's function of a massless scalar field in curved space-time and superluminal phase velocity of the retarded potential

De-Chang Dai and Dejan Stojkovic
hep-th/1209.3779
Comments: revtex, 7 pages, 1 figure

G/G gauged WZW model and Bethe Ansatz for the phase model

Satoshi Okuda and Yutaka Yoshida
hep-th/1209.3800
Comments: 15 pages
Report-no: KEK-TH-1569; RUP-12-10

Localization Problem in the 5D Standing Wave Braneworld

Merab Gogberashvili, Pavle Midodashvili and Levan Midodashvili
hep-th/1209.3815
Comments: 21 pages, 1 figure. arXiv admin note: substantial text overlap with arXiv:1105.1701, arXiv:1109.3758, arXiv:1204.2448, arXiv:1105.1866

Rapid field excursions and the inflationary tensor spectrum

Daniel Carney, Willy Fischler, Ely D. Kovetz, Dustin Lorshbough, Sonia Paban
hep-th/1209.3848
Report-no: UTTG-17-12; TCC-016-12

Prepotentials for N=2 conformal supergravity in three dimensions

Sergei M. Kuzenko
hep-th/1209.3894
Comments: 19 pages

Classification of symmetric toroidal orbifolds

Maximilian Fischer, Michael Ratz, Jesus Torrado, Patrick K.S. Vaudrevange
hep-th/1209.3906
Comments: 51 pages, 24 figures
Report-no: DESY-12-147, TUM-HEP 855/12, FLAVOUR(267104)-ERC-29, CETUP*-12/012

Gauge invariant and gauge fixed actions for various higher-spin fields from string field theory

Masako Asano
hep-th/1209.3921
Comments: 35 pages

Charged Black Branes with Hyperscaling Violating Factor

Mohsen Alishahiha, Eoin \'O Colg\'ain and Hossein Yavartanoo
hep-th/1209.3946
Comments: 19 pages

Moduli Stabilization in Warped de Sitter Compactifications

Antonino Flachi, Masato Minamitsuji, Kunihito Uzawa
hep-th/1209.3978
Comments: 15 pages, 8 figures

Seiberg-Witten equations and non-commutative spectral curves in Liouville theory

Leonid Chekhov, Bertrand Eynard and Sylvain Ribault
hep-th/1209.3984
Comments: 25 pages
Report-no: IPhT t12/075

Secondary graviton spectra, second-order correlations and Bose-Einstein enhancement

Massimo Giovannini
hep-th/1209.3991
Comments: 25 pages, no figures
Report-no: CERN-PH-TH/2012-218

Physical unitarity for a massive Yang-Mills theory without the Higgs field: (I) A perturbative treatment

Kei-Ichi Kondo, Kenta Suzuki, Hitoshi Fukamachi, Shogo Nishino and Toru Shinohara
hep-th/1209.3994
Comments: 16 pages, 11 figures
Report-no: CHIBA-EP-196

Snyder Geometry and Quantum Field Theory

Paolo Valtancoli
hep-th/1209.4012
Comments: 10 pages, LaTeX, no figures

New supersymmetric Wilson loops in ABJ(M) theories

V. Cardinali , L. Griguolo , G. Martelloni and D. Seminara

hep-th/1209.4032

Comments: 9 pages, no figure. arXiv admin note: text overlap with arXiv:0912.3006 by other authors

Fixed points and infrared completion of quantum gravity

Nicolai Christiansen, Daniel F. Litim, Jan M. Pawlowski, Andreas Rodigast

hep-th/1209.4038

Comments: 4 pages, 4 figures

Rigid supersymmetry, conformal coupling and twistor spinors

Paul de Medeiros

hep-th/1209.4043

Comments: 30 pages

Lifshitz-like solutions with hyperscaling violation in ungauged supergravity

Pablo Bueno, Wissam Chemissany, Patrick Meessen, Tomas Ortin and C. S. Shahbazi

hep-th/1209.4047

Comments: 20 pages

B-field in AdS(3)/CFT(2) Correspondence and Integrability

Alessandra Cagnazzo and Konstantin Zarembo

hep-th/1209.4049

Comments: 27 pages, 1 figure

Report-no: NORDITA-2012-67; UUITP-24/12

Nuclear Experiment (partial listing)

Inclusive cross section and single-transverse-spin asymmetry for very forward neutron production in polarized p+p collisions at sqrt(s)=200 GeV

A. Adare, S. Afanasiev, C. Aidala, N. N. Ajitanand, Y. Akiba, H. Al-Bataineh, J. Alexander, K. Aoki, L. Aphecetche, J. Asai, E. T. Atomssa, R. Averbeck, T. C. Awes, B. Azmoun, V. Babintsev, M. Bai, G. Baksay, L. Baksay, A. Baldisseri, K. N. Barish, P. D. Barnes, B. Bassalleck, A. T. Basye, S. Bathe, S. Batsouli, V. Baublis, C. Baumann, A. Bazilevsky, S. Belikov, R. Bennett, A. Berdnikov, Y. Berdnikov, A. A. Bickley, J. G. Boissevain, H. Borel, K. Boyle, M. L. Brooks, H. Buesching, V. Bumazhnov, G. Bunce, S. Butsyk, C. M. Camacho, S. Campbell, B. S. Chang, W. C. Chang, J.-L. Charvet, S. Chernichenko, C. Y. Chi, M. Chiu, I. J. Choi, R. K. Choudhury, T. Chujo, P. Chung, A. Churyn, V. Cianciolo, Z. Citron, B. A. Cole, P. Constantin, M. Csan\'ad, T. Cs\"org\H{o}, T. Dahms, S. Dairaku, K. Das, G. David, et al.

nucl-ex/1209.3283

Comments: 383 authors, 16 pages, 18 figures, 6 tables. Submitted to Phys. Rev. D. Plain text data tables for the points plotted in figures for this and previous PHENIX publications are (or will be) publicly available at http://www.phenix.bnl.gov/papers.html

Strangeness with ALICE: from pp to Pb-Pb

Betty Abelev, for the ALICE Collaboration

nucl-ex/1209.3285

Comments: This is a proceedings for the Physics of the LHC 2012 Conference, held in Vancouver, BC

Quarkonia and heavy-flavour production in CMS

Torsten Dahms, for the CMS Collaboration

nucl-ex/1209.3661

Comments: 10 pages, 5 figures. To appear in Proc. 5th Int. Conf. on Hard and Electromagnetic Probes of High-Energy Nuclear Collisions, Cagliari, Italy, May 27-June 1, 2012

Report-no: CMS CR-2012/216

Coherent J/Psi photoproduction in ultra-peripheral Pb-Pb collisions at \sqrt{s_NN} = 2.76 TeV

ALICE Collaboration

nucl-ex/1209.3715

Report-no: CERN-PH-EP-2012-270

Nuclear Theory (partial listing)

Realistic medium-averaging in radiative energy loss

Denes Molnar and Deke Sun
nucl-th/1209.2430
Comments: Contribution to Hard Probes 2012 Int. Conf. (4 pages, 8 PDF figures, Elsevier pdflatex style file)

Neutrality of a magnetized two-flavor quark superconductor

Tanumoy Mandal, Prashanth Jaikumar
nucl-th/1209.2432
Comments: 18 pages, 14 figures

Implications of nonzero θ_{13} for the neutrino mass hierarchy

D. J. Ernst, B. K. Cogswell, H. R. Burroughs, J. Escamilla-Roa, and D. C. Latimer
nucl-th/1209.2456
Comments: 8 pages, 8 figures, to appear in Horizons of Innovative Theories, Experiments, and Supercomputing in Nuclear Physics (New Orleans, June 4-6, 2012)

Spinodal amplification of density fluctuations in fluid-dynamical simulations of relativistic nuclear collisions

Jan Steinheimer and Jorgen Randrup
nucl-th/1209.2462
Comments: 4 pages 4 figures

The EMC Effect and Short-Range Correlations

Misak M Sargsian
nucl-th/1209.2477
Comments: 5 pages, 2 figures, presented at CIPANP 2012 - Eleventh Conference on the Intersections of Particle and Nuclear Physics, 28 May - 03 June, 2012

Complete one-loop calculation of threshold neutral pion photoproduction off the tri-nucleon system

Mark Lenkewitz, Evgeny Epelbaum, H.-W. Hammer, Ulf-G. Mei{\ss}ner
nucl-th/1209.2661
Comments: 16 pages, 5 figures

Pure Neutron Matter Constraints and Nuclear Symmetry Energy

F. J. Fattoyev, W. G. Newton, Jun Xu and Bao-An Li
nucl-th/1209.2718
Comments: Talk given at the 11th International Conference on Nucleus-Nucleus Collisions (NN2012), San Antonio, Texas, USA, May 27-June 1, 2012. To appear in the NN2012 Proceedings in Journal of Physics: Conference Series (JPCS)

Existence and stability of multiple solutions to the gap equation

Kun-lun Wang, Si-xue Qin, Yu-xin Liu, Lei Chang, Craig D. Roberts and Sebastian M. Schmidt
nucl-th/1209.2757
Comments: 14 pages, 15 figures

Narrow bound states of the DNN system

E. Oset, M. Bayar, C. W. Xiao, T. Hyodo, A. Dote and M. Oka
nucl-th/1209.2955
Comments: Talk at the Few Body 20 Conference, Fukuoka, Japan, August 2012

Bulk Properties of a Fermi Gas in a Magnetic Field

Michael Strickland, Veronica Dexheimer, and Debora P. Menezes
nucl-th/1209.3276
Comments: 12 pages, 7 figures

Neutron Star Properties in the Chiral Quark-Meson Coupling Model

Tsuyoshi Miyatsu, Koichi Saito

nucl-th/1209.3360

Comments: 4 pages, 3 figures, 1 table, Presented at the 20th International IUPAP Conference on Few-Body Problems in Physics, 20 - 25 August, 2012, Fukuoka, Japan

Nuclear Quantum Many-Body Dynamics: From Collective Vibrations to Heavy-Ion Collisions

C\'edric Simenel

nucl-th/1209.3375

Comments: 49 pages. Review article to be published in EPJA

Hydrodynamics of anisotropic quark and gluon fluids

Wojciech Florkowski, Radoslaw Maj, Radoslaw Ryblewski, and Michael Strickland

nucl-th/1209.3671

Comments: 11 pages, 7 figures

Neutrino Astrophysics

W. C. Haxton

nucl-th/1209.3743

Comments: 42 pages, 15 figures; to appear in Wiley's Encyclopedia of Nuclear Physics. arXiv admin note: substantial text overlap with arXiv:0808.0735

Report-no: UCB-NPAT-12-014; NT-LBL-12-017

Electromagnetic form factors of the nucleon in effective field theory

T. Bauer, J. C. Bernauer, S. Scherer

nucl-th/1209.3872

Comments: 26 pages, 9 figures

Photoproduction of $\eta^\prime$ mesons off nuclei and their properties in the nuclear medium

E. Ya. Paryev

nucl-th/1209.4050

Comments: 17 pages

Physics (partial listing)

Comments to the article "Parametric fitting of data obtained from detectors with finite resolution and limited acceptance" [arXiv:1011.0662] by Gagunashvili

G. Bohm, G. Zech

physics/1209.1830

Michelson interferometer with diffractively-coupled arm resonators in second-order Littrow configuration

Michael Britzger, Maximilian H. Wimmer, Alexander Khalaidovski, Daniel Friedrich, Stefanie Kroker, Frank Brueckner, Ernst-Bernhard Kley, Andreas Tu ennermann, Karsten Danzmann, and Roman Schnabel

physics/1209.1961

Thermodynamics and time-directional invariance

A. Y. Klimenko and U.Maas

physics/1209.1982

Comments: 20 pages, 7 figures

Laboratory limit on the charge of photons by electric field deflection

A. Hankins, C. Rackson, and W. J. Kim

physics/1209.2052

The low energy spectrum of TeO2 bolometers: results and perspectives for the CUORE-0 and CUORE experiments

F. Alessandria, R. Ardito, D. R. Artusa, F. T. Avignone III, O. Azzolini, M. Balata, T. I. Banks, G. Bari, J. Beeman, F.

Bellini, A. Bersani, M. Biassoni, T. Bloxham, C. Brofferio, C. Bucci, X. Z. Cai, L. Canonica, S. Capelli, L. Carbone, L. Cardani, M. Carrettoni, N. Casali, N. Chott, M. Clemenza, C. Cosmelli, O. Cremonesi, R. J. Creswick, I. Dafinei, A. Dally, V. Datskov, A. De Biasi, M. P. Decowski, M. M. Deninno, S. Di Domizio, M. L. di Vacri, L. Ejzak, R. Faccini, D. Q. Fang, H. A. Farach, E. Ferri, F. Ferroni, E. Fiorini, M. A. Franceschi, S. J. Freedman, G. Frossati, B. K. Fujikawa, A. Giachero, L. Gironi, A. Giuliani, J. J. Goett, P. Gorla, C. Gotti, E. Guardincerri, T. D. Gutierrez, E. E. Haller, K. Han, K. M. Heeger, H. Z. Huang, R. Kadel, K. Kazkaz, G. Keppel, L. Kogler, Yu. G. Kolomensky, et al.
physics/1209.2519
Comments: 8 pages, 10 figures

The CLIC Programme: Towards a Staged e+e- Linear Collider Exploring the Terascale : CLIC Conceptual Design Report

P. Lebrun , L. Linssen , A. Lucaci-Timoce , D. Schulte , F. Simon, S. Stapnes , N. Toge , H. Weerts and J. Wells
physics/1209.2543
Comments: 84 pages, published as CERN Yellow Report https://cdsweb.cern.ch/record/1475225
Report-no: CERN-2012-005; ANL-HEP-TR-12-51; KEK-Report-2012-2; MPP-2012-115

Status of the CALICE analog calorimeter technological prototypes

Mark Terwort, for the CALICE Collaboration
physics/1209.2594
Comments: 6 pages, 9 figures, proceedings for CALOR conference, 4-8 June 2012, Santa Fe, NM

CMS reconstruction improvement for the muon tracking by the RPC chambers

M. S. Kim, H. Seo, J. Goh, Y. Choi, K. Beernaert, A. Cimmino, S. Costantini, G. Garcia, J. Lellouch, A. Marinov, A. Ocampo, N. Strobbe, F. Thyssen, M. Tytgat, P. Verwilligen, E. Yazgan, N. Zaganidis, A. Dimitrov, R. Hadjiiska, L. Litov, B. Pavlov, P. Petkov, A. Aleksandrov, V. Genchev, P. Iaydjiev, M. Rodozov, M. Shopova, G. Sultanov, Y. Ban, J. Cai, Y. Ge, Q. Li, S. Qian, Z. Xue, C. Avila, L. F. Chaparro, J. P. Gomez, B. Gomez Moreno, A. F. Osorio Oliveros, J. C. Sanabria, Y. Assran, A. Sharma, M. Abbrescia, C. Calabria, A. Colaleo, F. Loddo, M. Maggi, G. Pugliese, L. Benussi, S. Bianco, S. Colafranceschi, D. Piccolo, S. Buontempo, C. Carrillo, O. Iorio, P. Paolucci, U. Berzano, M. Gabusi, P. Vitulo, M. Kang, K. S. Lee, S. K. Park, and S. Shin
physics/1209.2646
Comments: Presented by Minsuk Kim at the XI workshop on Resistive Plate Chambers and Related Detectors - RPC2012, INFN Laboratori Nazionali di Frascati Italy, February 5-10, 2012

Potential fitting biases resulting from grouping data into variable width bins

S. Towers
physics/1209.2690
Comments: 8 pages, 3 figures

Fast Bunch Integrators at Fermilab During Run II

Thomas Meyer, Charles Briegel, Brian Fellenz, Greg Vogel
physics/1209.2714
Comments: 6 pp
Report-no: FERMILAB-PUB-11-320-AD

Loss of Landau Damping for Bunch Oscillations

A. Burov
physics/1209.2715
Comments: 8 pp
Report-no: FERMILAB-PUB-11-174-AD

Cosmic Ray Radiography of the Damaged Cores of the Fukushima Reactors

Konstantin Borozdin, Steven Greene, Zarija Luki\'c, Edward Cas Milner, Haruo Miyadera, Christopher Morris, and John Perry
physics/1209.2761
Comments: Accepted to Physical Review Letters; 5 pages, 3 figures
Report-no: LA-UR-12-23524

Beam Dynamics in a Double-Channel Waveguide with Gain and Loss

Pengfei Li, Rujiang Li, Lu Li
physics/1209.2762
Comments: This paper has been accepted by Romanian Reports in Physics

Matter: Space without Time

Yousef Ghazi-Tabatabai
physics/1209.3066
Comments: 17 pages, 3 figures

Condensation of the scalar field with Stuckelberg and Weyl Corrections in the background of a planar AdS-Schwarzschild black hole

D. Momeni, M. R. Setare, Ratbay Myrzakulov
physics/1209.3104
Comments: 11 pages, 1 figure, 1 table. arXiv admin note: substantial text overlap with arXiv:1106.0431
Journal-ref: Int. J. Mod. Phys. A27, 1250128 (2012)

Record Performance of Electrical Injection Sub-wavelength Metallic-Cavity Semiconductor Lasers at Room Temperature

K. Ding, M. T. Hill, Z.C. Liu, L. J. Yin, P. J. van Veldhoven, and C.Z. Ning
physics/1209.3261

Effect of electron heating on self-induced transparency in relativistic intensity laser-plasma interaction

E. Siminos, M. Grech, S. Skupin, T. Schlegel and V. T. Tikhonchuk
physics/1209.3322
Comments: 13 pages, 12 figures

Observation of the Gouy and Larmor rotations in electron vortex beams

Giulio Guzzinati, Peter Schattschneider, Konstantin Bliokh, Franco Nori, Jo Verbeeck
physics/1209.3413
Comments: 11 pages, 5 figures

Lattice Gauge Theory and the Origin of Mass

Andreas S. Kronfeld
physics/1209.3468
Comments: prepared for "100 Years of Subatomic Physics," edited by Ernest Henley. Comments received before Tuesday, Sept. 25, can influence the final submission. 26 pp., 6 figures
Report-no: FERMILAB-PUB-12-513-T

The ALICE electromagnetic calorimeter high level triggers

F. Ronchetti, F. Blanco, M. Figueredo, A.G. Knospe and L. Xaplanteris for the ALICE HLT Collaboration
physics/1209.3647
Comments: Proceeding for the CHEP 2012 Conference

Kernel based unfolding of data obtained from detectors with finite resolution and limited acceptance

N. D. Gagunashvili and M. Schmelling
physics/1209.3766
Comments: 22 pages, 6 figures

NumExp: Numerical epsilon expansion of hypergeometric functions

Zhi-Wei Huang and Jueping Liu
physics/1209.3971
Comments: 15 pages; program obtainable from arXiv: Ancillary files

Performance of Particle Flow Calorimetry at CLIC

J. S. Marshall, A. M\"unnich, M. A. Thomson
physics/1209.4039
Comments: 14 pages, 11 figures
Report-no: CU-HEP-12/12

Status and Plans for an SRF Accelerator Test Facility at Fermilab

M. Church, J. Leibfritz, S. Nagaitsev
physics/1209.4052

Comments: 4 pp. 15th International Conference on RF Superconductivity (SRF2011). 25-29 Jul 2011. Chicago, Illinois, USA
Report-no: FERMILAB-CONF-11-360-AD

RF Test Results from Cryomodule 1 at the Fermilab SRF Beam Test Facility

E. Harms, K. Carlson, B. Chase, E. Cullerton, A. Hocker, C. Jensen, P. Joireman, A. Klebaner, T. Kubicki, M. Kucera, A. Legan, J. Leibfritz, A. Martinez, M. McGee, S. Nagaitsev, O. Nezhevenko, D. Nicklaus, H. Pfeffer, Y. Pischalnikov, P. Prieto, J. Reid, W. Schappert, V. Tupikov, P. Varghese , J. Branlard
physics/1209.4054
Comments: 4 pp. 15th International Conference on RF Superconductivity (SRF2011). 25-29 Jul 2011. Chicago, Illinois, USA
Report-no: FERMILAB-CONF-11-352-AD-TD

Quantum Physics (partial listing)

quant-ph/1209.07521209.2494

Spontaneous excitation of a uniformly accelerated atom coupled with vacuum Dirac field fluctuations

Wenting Zhou and Hongwei Yu
quant-ph/1209.2494
Comments: 14 pages, no figures, to appear in Phys. Rev. A

Relative helicity phases in planar Dirac scattering

Stefano De Leo and Pietro Rotelli
quant-ph/1209.3698
Comments: 5 pages
Journal-ref: Physical Review A 86, 032113-5 (2012)

A principle of relativity for quantum theory

Marco Zaopo
quant-ph/1209.3887
Comments: Comments and critics are welcome. arXiv admin note: text overlap with arXiv:1105.4464, arXiv:astro-ph/0107571 by other authors

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Mathematical Physics (partial listing)

The initial value problem for ordinary differential equations with infinitely many derivatives

Przemyslaw Gorka, Humberto Prado and Enrique G. Reyes
math-ph/1208.6314
Comments: PACS numbers: 02.30.Uu, 04.50.Kd, 11.10.Lm, 98.80.Jk
Journal-ref: Classical and Quantum Gravity 29 (2012) 065017

On the influence of a Coulomb-like potential induced by the Lorentz symmetry breaking effects on the Harmonic Oscillator

Knut Bakke and Humberto Belich
math-ph/1208.6482
Comments: 14 pages, no figure, this work has been accepted for publication in The European Physical Journal Plus

Two-dimensional Quantum Field Models (with applications to Statistical Mechanics)

Pierluigi Falco
math-ph/1208.6568
Comments: 10 pages; International Conference on Mathematical Physics 2012 - Topical Section: Quantum Field Theory

Spectral singularity and non-Hermitian PT-symmetric extension of A_{N-1} type Calogero model without confining potential

Bhabani Prasad Mandal and Ananya Ghatak
math-ph/1209.0535
Comments: 10 pages, Latex, No figs, Version to appear J. Phys A: Math. Theor. (Special issue)

Supercharges in the HKT Supersymmetric Sigma Models

A.V.Smilga
math-ph/1209.0539
Comments: 12 pages

Comment on Wigner surmise for mixed symmetry classes in random matrix theory

Shinsuke M. Nishigaki
math-ph/1209.0696
Comments: 3 pages in REVTeX, 10 figures

Algebraic Structure of Classical Field Theory I: Kinematics and Linearized Dynamics for Real Scalar Fields

Romeo Brunetti, Klaus Fredenhagen, Pedro Lauridsen Ribeiro
math-ph/1209.2148
Comments: 53 pages, no figures. Version 2: corrected a mistake in the proof of Corollary 4.0.19, minor rewording, added remark and acknowledgement

On the equivalence of two deformation schemes in quantum field theory

Gandalf Lechner and Jan Schlemmer and Yoh Tanimoto
math-ph/1209.2547
Comments: 14 pages, no figure

Construction of Hadamard states by pseudo-differential calculus

Christian G\'erard , Michal Wrochna
math-ph/1209.2604

A nonlinear variational problem in relativistic quantum mechanics

Mathieu Lewin
math-ph/1209.2786
Comments: Proceeding from the 6th European Congress of Mathematics at Krakow (Poland), July 2012
Journal-ref: 6th European Congress of Mathematics, Krakow : Poland (2012)

A Moduli Space of the Quaternionic Hopf Surface Encodes Standard Model Physics

Colin B. Hunter
math-ph/1209.2982
Comments: 47 pages .pdf

Existence Theorems for Vortices in the Aharony--Bergman--Jaferis--Maldacena Model

Xiaosen Han and Yisong Yang
math-ph/1209.3078

Spectral theory of a mathematical model in Quantum Field Theory for any spin

Jean-Claude Guillot
math-ph/1209.3207
Comments: 65 pages, no figure

A review of the 1/N expansion in random tensor models

Razvan Gurau
math-ph/1209.3252
Comments: Proceedings of the International Congress on Mathematical Physics 2012 - Topical Section: Quantum Field Theory

Regularization just by quantization -- a new approach to the old problem of infinities in quantum field theory (Draft of lecture notes - Part 1)

Marek Czachor
math-ph/1209.3465
Comments: 109 pages

Doubly Periodic Self-Dual Vortices for a Relativistic Non-Abelian Chern--Simons Model

Xiaosen Han and Gabriella Tarantello
math-ph/1209.3535

Differential geometry, Palatini gravity and reduction

Santiago Capriotti
math-ph/1209.3596
Comments: 24 pages, no figures

Dirac spectrum and spectral action of SU(3)

Kevin Teh, Alan Lai
math-ph/1209.3812
Comments: 11 pages

On particle type string solutions in AdS_3 x S^3

George Jorjadze, Zurab Kepuladze, Luka Megrelidze
math-ph/1209.3997
Comments: 12+1 pages. 1 Fig
Journal-ref: Proceedings of A Razmadze Mathematical Institute, Vol. 159 (2012), 43-59

Mathematics (partial listing)

Connectedness of the moduli of Sp(2p,2q)-Higgs bundles

Oscar Garc\'ia-Prada, Andr\'e Oliveira
math/1209.2336
Comments: 22 pages. arXiv admin note: text overlap with arXiv:1004.0245

SU(2)-Donaldson invariants of the complex projective plane

Michael Griffin, Andreas Malmendier and Ken Ono
math/1209.2743
Comments: 18 pages. arXiv admin note: text overlap with arXiv:0808.1442, arXiv:1008.0175

Bounded Weyl pseudodifferential operators in Fock space

Laurent Amour, Lisette Jager and Jean Nourrigat
math/1209.2852

Low regularity solutions to the Chern-Simons-Dirac and the Chern-Simons-Higgs equations in the Lorenz gauge

Hyungjin Huh and Sung-Jin Oh
math/1209.3841
Comments: 18 pages

Convergence of Yang-Mills-Higgs flow for twist Higgs pairs on Riemann surfaces

Wei Zhang
math/1209.3907
Comments: 19 pages, 1 figure. arXiv admin note: text overlap with arXiv:math/0410055, arXiv:math/0611113 by other authors

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Computer Science (partial listing)

Lambert W Function for Applications in Physics

Darko Veberic
cs/1209.0735
Comments: 9 pages, 12 figures. Extended version of version of arXiv:1003.1628
Journal-ref: Computer Physics Communications 183 (2012) 2622-2628

Accelerators

Magnetron RF source for the Project X pulsed linac.

Grigory Kazakevich, et al., Proton Driver Collaboration.
- FERMILAB-CONF-12-237-AD-TD
Talk: New Orleans 2012/05/20

FPCP 2012 Summary Talk on Experiments.

Jeffrey A. Appel
- FERMILAB-CONF-12-512-DI
Talk: Hefei 2012/05/21

Measurements of Transverse Beam Halo Diffusion Rates in the LHC With Collimator Scans.

G. Stancari, V. Previtali, A. Valishev, R.W. Assmann, F. Burkart, S. Redaelli, B. Salvachua, G. Valentino
- FERMILAB-FN-0950-APC

Channeling Radiation as a Source of Hard X-Rays With High Spectral Brilliance.

C.A. Brau, B.-K. Choi, J.D. Jarvis, J.W. Lewellen, P. Piot
- FERMILAB-PUB-12-503-APC

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