List of weekly accessions
Preprints
(DESY week 05)

partial listing = relevant for HEP

http://www-library.desy.de/lists/preps/prep-05.html

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25 articles in Astrophysics (partial listing)
4 articles in Condensed Matter (partial listing)
39 articles in General Relativity and Quantum Cosmology
18 articles in High Energy Physics - Experiment
7 articles in High Energy Physics - Lattice
62 articles in High Energy Physics - Phenomenology
50 articles in High Energy Physics - Theory
6 articles in Nuclear Experiment (partial listing)
8 articles in Nuclear Theory (partial listing)
11 articles in Physics (partial listing)
5 articles in Quantum Physics (partial listing)
11 articles in Mathematical Physics (partial listing)
6 articles in Mathematics (partial listing)

Astrophysics (partial listing)

Cosmological constraints on a decomposed Chaplygin gas

Yuting Wang, David Wands, Lixin Xu, Josue De-Santiago, Alireza Hojjati
astro-ph/1301.5315
Comments: 16 pages, 11 figures

Measurement of South Pole ice transparency with the IceCube LED calibration system

IceCube Collaboration: M. G. Aartsen, R. Abbasi, Y. Abdou, M. Ackermann, J. Adams, J. A. Aguilar, M. Ahlers, D. Altmann, J. Auffenberg, X. Bai, M. Baker, S. W. Barwick, V. Baum, R. Bay, J. J. Beatty, S. Bechet, J. Becker Tjus, K.-H. Becker, M. Bell, M. L. Benabderrahmane, S. BenZvi, J. Berdermann, P. Berghaus, D. Berley, E. Bernardini, A. Bernhard, D. Bertrand, D. Z. Besson, G. Binder, D. Bindig, M. Bissok, E. Blaufuss, J. Blumenthal, D. J. Boersma, S. Bohaichuk, C. Bohm, D. Bose, S. B\"oser, O. Botner, L. Brayeur, A. M. Brown, R. Bruijn, J. Brunner, S. Buitink, M. Carson, J. Casey, M. Casier, D. Chirkin, B. Christy, K. Clark, F. Clevermann, S. Cohen, D. F. Cowen, A. H. Cruz Silva, M. Danninger, J. Daughhetee, J. C. Davis, C. De Clercq, S. De Ridder, P. Desiati, M. de With, T. DeYoung, J. C. D\'iaz-V\'elez, et al.
astro-ph/1301.5361

Constraints on relativity violations from gamma-ray bursts

Alan Kostelecky and Matthew Mewes
astro-ph/1301.5367
Comments: 10 pages
Report-no: IUHET 572, January 2013

Comparison of the moments of the Xmax distribution predicted by different cosmic ray shower simulation models

Carlos Jose Todero Peixoto, Vitor de Souza and Jose Bellido
astro-ph/1301.5555
Comments: Submitted to Astroparticle Physics

Limits on Semiclassical Fluctuations in the Primordial Universe

Grigor Aslanyan, Aneesh V. Manohar, Amit P. S. Yadav
astro-ph/1301.5641

Pulsar Timing Arrays

Bhal Chandra Joshi

astro-ph/1301.5730

Comments: 17 pages, 3 figures, 1 tables,to be published in IJMPD Vol. 22,1341008 (2013)

Reconstructing the Properties of Dark Energy using Standard Sirens

Maryam Arabsalmani, Varun Sahni and Tarun Deep Saini

astro-ph/1301.5779

Comments: 12 pages, 10 figures

On the detection of the integrated Sachs-Wolfe effect with stacked voids

S. Ilic, M. Langer, M. Douspis

astro-ph/1301.5849

Comments: 12 pages, 18 figures, 4 tables. Submitted to A&A

Constraints on the annihilation cross section of dark matter particles from anisotropies in the diffuse gamma-ray background measured with Fermi-LAT

Shin'ichiro Ando, Eiichiro Komatsu

astro-ph/1301.5901

Comments: 13 pages, 18 figures, comments welcome

Dark Matter CMB Constraints and Likelihoods for Poor Particle Physicists

James M. Cline and Pat Scott

astro-ph/1301.5908

Comments: 7 pages, 5 figures, 2 tables

Multi-variate joint PDF for non-Gaussianities: exact formulation and generic approximations

Licia Verde, Raul Jimenez, Luis Alvarez-Gaume, Alan F. Heavens, Sabino Matarrese

astro-ph/1301.6017

CMB and matter power spectra from cross correlations of primordial curvature and magnetic fields

Kerstin E. Kunze

astro-ph/1301.6105

Comments: 13 pages, 11 figures

UHECR escape mechanisms for protons and neutrons from GRBs, and the cosmic ray-neutrino connection

Philipp Baerwald, Mauricio Bustamante, and Walter Winter

astro-ph/1301.6163

Comments: 33 pages, 7 figures, 1 table

DAMA/LIBRA results and perspectives

R. Bernabei , P. Belli , A. Di Marco , F. Cappella , A. d'Angelo , A. Incicchitti , V. Caracciolo , R. Cerulli , C. J. Dai , H. L. He , X. H. Ma , X. D. Sheng , R. G. Wang , F. Montecchia , Z. P. Ye

astro-ph/1301.6243

Comments: 12 pages, Proceed. of the 15th Bled Workshop "What Comes Beyond Standard Models" (December 2012), Vol. 13, No. 2

Measurement of the proton light response of various LAB based scintillators and its implication for supernova neutrino detection via neutrino-proton scattering

B. von Krosigk, L. Neumann, R. Nolte, S. R\"ottger, K. Zuber

astro-ph/1301.6403

Comments: Corrected typo in Introduction

LUNASKA neutrino search with the Parkes and ATCA telescopes

J. D. Bray, R. D. Ekers, R. J. Protheroe, C. W. James, C. J. Phillips, P. Roberts, A. Brown, J. E. Reynolds, R. A. McFadden, M. Aartsen

astro-ph/1301.6490

Comments: 13 pages, 7 figures, Proceedings of the ARENA 2012 workshop (Erlangen, Germany)

Neutrino searches with the IceCube telescope

Juan A. Aguilar, for the IceCube Collaboration

astro-ph/1301.6504

Comments: 3 pages, 3 figures, in proceedings of NOW 2012, to appear in Nucl. Phys. B (Proc. Suppl.)

The contribution of the Warm-Hot Intergalactic Medium to the CMB anisotropies via the Sunyaev-Zeldovich effect

I. F. Suarez-Vel\'asquez, J. P. M\"ucket, F. Atrio-Barandela

astro-ph/1301.6546

Comments: 7 pages, 7 figures, Accepted for publication in MNRAS

To the study of non-Gaussianity in two-field slow-roll inflation

N. A. Koshelev

astro-ph/1301.6552

Comments: 15 pages

Measurements of the cosmic ray spectrum and average mass with IceCube

Shahid Hussain

astro-ph/1301.6619

Comments: 15 pages, 8 figures; submitted to Advances in Space Research

Limits on spin-dependent WIMP-nucleon cross sections from 225 live days of XENON100 data

XENON100 collaboration: E. Aprile, M. Alfonsi, K. Arisaka, F. Arneodo, C. Balan, L. Baudis, B. Bauermeister, A. Behrens, P. Beltrame, K. Bokeloh, A. Brown, E. Brown, G. Bruno, R. Budnik, J. M. R. Cardoso, W.-T. Chen, B. Choi, A. P. Colijn, H. Contreras, J. P. Cussonneau, M. P. Decowski, E. Duchovni, S. Fattori, A. D. Ferella, W. Fulgione, F. Gao, M. Garbini, C. Ghag, K.-L. Giboni, L. W. Goetzke, C. Grignon, E. Gross, W. Hampel, F. Kaether, A. Kish, J. Lamblin, H. Landsman, R. F. Lang, M. Le Calloch, D. Lellouch, C. Levy, K. E. Lim, Q. Lin, S. Lindemann, M. Lindner, J. A. M. Lopes, K. Lung, T. Marrodan Undagoitia, F. V. Massoli, A. J. Melgarejo Fernandez, Y. Meng, M. Messina, A. Molinario, K. Ni, U. Oberlack, S. E. A. Orrigo, E. Pantic, R. Persiani, G. Plante, N. Priel, A. Rizzo, S. Rosendahl, et al.

astro-ph/1301.6620

Comments: 5 pages, 3 figures; corrected caption of figure 3

Interpretation of the Depths of Maximum of Extensive Air Showers Measured by the Pierre Auger Observatory

Pierre Auger Collaboration

astro-ph/1301.6637

Comments: 15 pages, 6 figures

Dark matter mass profiles in the Milky Way and in galaxy clusters support a prior claim of 4.0 eV and 21.4 eV sterile neutrinos

Man Ho Chan and Robert Ehrlich

astro-ph/1301.6640

The LUX Dark Matter Search -- Status Update

S. Fiorucci, for the LUX Collaboration

astro-ph/1301.6942

Comments: 3 pages, no figures. To appear in the proceedings of the Sixth symposium of large TPCs for low energy rare events detection, Paris, December 2012

Composite mirror facets for ground based gamma ray astronomy

P. Brun, P.-H. Carton, D. Durand, J-F. Glicenstein, C. Jeanney, M.C. Medina, P. Micolon, B. Peyaud

astro-ph/1301.6988

Comments: 16 pages, 13 figures, accepted to be published on NIM A

Condensed Matter (partial listing)

Realization of higher Wess-Zumino-Witten models in spin chains

Fr\'ed\'eric Michaud, Salvatore R. Manmana, Fr\'ed\'eric Mila
cond-mat/1301.5719
Comments: 5 pages, 5 figures

Wave Functions of Bosonic Symmetry Protected Topological Phases

Cenke Xu, T. Senthil
cond-mat/1301.6172
Comments: 7 pages, 3 figures

Infra-red expansion of entanglement entropy in the Interacting Resonant Level Model

Lo\"ic Freton, Edouard Boulat, Hubert Saleur
cond-mat/1301.6535
Comments: 27 pages, 11 figures

Modular invariance in the gapped XYZ spin chain

Elisa Ercolessi, Stefano Evangelisti, Fabio Franchini, and Francesco Ravanini
cond-mat/1301.6758
Comments: 18 pages, 3 figures, 1 table
Report-no: MIT-CTP 4414

General Relativity and Quantum Cosmology

Polymer Bose--Einstein Condensates

E. Castellanos, G. Chacon-Acosta
gr-qc/1301.5362

Dark Matter; Modification of f(R) or Wimps Miracle

A.\"Ovg\"un
gr-qc/1301.5371
Comments: M.Sc. Thesis in Physics defended at Eastern Mediterranean University, Famagusta T.R. North Cyprus via Mersin 10, Turkey (January 2013). 42 pages

Tachyon motion in a black hole gravitational field

V. M. Lipunov
gr-qc/1301.5428
Comments: This English translation features the work that was published 35 years ago and was one of the first investigations of tachyons in the general relativity. As well as giving a solution to a specific problem, the paper put forward several ideas: birth of tachyons in the pre-Planck era, shock type of gravitational waves emitted by tachyons, existence of relic tachyons. 6 pages, 2 figures
Journal-ref: Astrometriia i Astrofizika, no. 35, 1978, p. 98-101 (Russian)

Horava-Lifshitz early universe phase transition beyond detailed balance

F. Kheyri, M. Khodadi and H. R. Sepangi
gr-qc/1301.5460
Comments: 14 pages, 11 figures, to appear in Eur. Phys. J. C. arXiv admin note: text overlap with arXiv:0912.2541, arXiv:0807.3066, arXiv:1005.3508, arXiv:1011.4230 by other authors

New theories of gravity

Christian G. Boehmer, Nicola Tamanini
gr-qc/1301.5471
Comments: 8 pages

Quantum Gravity: the view from particle physics

Hermann Nicolai
gr-qc/1301.5481

Comments: Invited Lecture at the conference "Relativity and Gravitation: 100 Years after Einstein in Prague", June 25 - 29, 2012, Prague, Czech Republic

The asymptotic safety scenario and scalar field inflation

Christoph Rahmede
gr-qc/1301.5495
Comments: Contribution to the proceedings of the Thirteenth Marcel Grossmann Meeting, Stockholm, 2012
Report-no: KA-TP-02-2013; DO-TH 13/03

On the rest and flat limits of the scalar modes on the de Sitter spacetime

Ion I. Cotaescu, Gabriel Pascu, Flavius Alin Dregoesc
gr-qc/1301.5509
Comments: 9 pages no figures

Non-minimal Higgs Inflation and Frame Dependence in Cosmology

Christian F. Steinwachs and Alexander Yu. Kamenshchik
gr-qc/1301.5543
Comments: 4 pages, 3 figures. To appear in the proceedings of the Multiverse and Fundamental Cosmology Conference (Multicosmofun 2012), Szczecin, Poland

Space-Times with Integrable Singularity

Vladimir N. Lukash and Vladimir N. Strokov
gr-qc/1301.5544
Comments: 13 pages, 2 figures, IJMPA style
Journal-ref: Int. J. Mod. Phys. A, Vol. 28, 1350007 (2013)

Pulsar Constraints on Screened Modified Gravity

Philippe Brax and Anne-Christine Davis
gr-qc/1301.5587
Comments: 15 pages

When can gravitational-wave observations distinguish between black holes and neutron stars?

Mark Hannam, Duncan A. Brown, Stephen Fairhurst, Chris L. Fryer, Ian W. Harry
gr-qc/1301.5616
Comments: 5 pages, 4 figures

Post-Newtonian Celestial Dynamics in Cosmology: Field Equations

Sergei Kopeikin , Alexander Petrov
gr-qc/1301.5706
Comments: 59 pages, accepted to Physical Review D

Asymptotic symmetries at null infinity and local conformal properties of spin coefficients

Glenn Barnich and Pierre-Henry Lambert
gr-qc/1301.5754
Comments: 6 pages latex file, conference proceedings

Weak field approximation in a model of de Sitter gravity: Schwarzschild solutions and galactic rotation curves

Jia-An Lu and Chao-Guang Huang
gr-qc/1301.5796
Comments: 13 pages

Hamiltonian spinfoam gravity

Wolfgang M. Wieland
gr-qc/1301.5859
Comments: 28 pages, 2 figures

Cosmology and gravitational waves in the Nordstrom-Vlasov system, a laboratory for Dark Energy

Christian Corda
gr-qc/1301.5900
Comments: 11 pages, invited contribution accepted for publication by New Adv. Phys. To appear in Issue 7(1) 2013 on

Dark Energy

A new probe of dark matter properties: gravitational waves from an intermediate mass black hole embedded in a dark matter mini-spike

Kazunari Eda, Yousuke Itoh, Sachiko Kuroyanagi, Joseph Silk
gr-qc/1301.5971
Comments: 6 pages,3 figures

Neutrino Spin Oscillations in a Black Hole Background in Noncommutative Spaces

S. A. Alavi, S. Nodeh
gr-qc/1301.5977
Comments: 13 pages, 5 figures

Measurement-Induced-Nonlocality via the Unruh effect

Zehua Tian and Jiliang Jing
gr-qc/1301.5981
Comments: 19 pages, 9 figures, accepted for publication in Annals of Physics. arXiv admin note: substantial text overlap with arXiv:1204.2326

Nonlocality and Entanglement via the Unruh effect

Zehua Tian, Jieci Wang and Jiliang Jing
gr-qc/1301.5987
Comments: 19 pages, 7 figures, accepted for publication in Annals of Physics. arXiv admin note: text overlap with arXiv:1003.4477 by other authors

Extra-dimensional metamaterials: simple models of inflation and metric signature transitions

Igor I. Smolyaninov
gr-qc/1301.6060
Comments: 14 pages, 1 figure

Effects of the Generalized Uncertainty Principle on Compact Stars

Ahmed Farag Ali , A. Tawfik
gr-qc/1301.6133
Comments: 7 pages, two figures, to appear in IJMPD

Scale Anomaly as the Origin of Time

Julian Barbour, Matteo Lostaglio, Flavio Mercati
gr-qc/1301.6173
Comments: 31 pages, 5 figures

Hyperboloidal Einstein-matter evolution and tails for scalar and Yang-Mills fields

Oliver Rinne, Vincent Moncrief
gr-qc/1301.6174
Comments: 28 pages, 9 figures
Report-no: AEI-2013-043

Embedding loop quantum cosmology without piecewise linearity

Jonathan Engle
gr-qc/1301.6210
Comments: 18 pages

One-loop Euclidean Einstein-Weyl gravity in de Sitter universe

E. Elizalde, G. Cognola, S. Zerbini
gr-qc/1301.6269
Comments: 12 pages, latex, to appear in Phys.Rev.D. arXiv admin note: text overlap with arXiv:1203.5032

Brane cosmology from observational surveys and its comparison with standard FRW cosmology

A. V. Astashenok, E. Elizalde, J. de Haro, S. D. Odintsov, A. V. Yurov
gr-qc/1301.6344
Comments: 19 pages, 6 figures. arXiv admin note: text overlap with arXiv:1206.2192

Relic gravitational waves in the frame of slow-roll inflation with a power-law potential and the detection

Ming-Lei Tong
gr-qc/1301.6351
Comments: 18 pages, 10 figures, 1 table. arXiv admin note: substantial text overlap with arXiv:1206.2109
Report-no: NTSC-Tong/02

Geometrical and hydrodynamic aspects of five-dimensional Schwarzschild black hole

Soon-Tae Hong
gr-qc/1301.6353
Comments: 8 pages

How to kill the Unruh effect

Ion I. Cotaescu
gr-qc/1301.6650

Embedding hairy black holes in a magnetic universe

Marco Astorino
gr-qc/1301.6794
Comments: 16 pages
Report-no: CECS-PHY-13/01

Inhomogenous loop quantum cosmology with matter

Daniel Mart\'in-de Blas, Mercedes Mart\'in-Benito, Guillermo A. Mena Marug\'an
gr-qc/1301.6795
Comments: 4 pages, Contribution to the proceedings of the Loops 11-Madrid conference
Journal-ref: J. Phys.: Conf. Ser. 360 (2012) 012032

QCD ghost dark energy can not (even roughly) explain the main features of the accepted cosmological paradigm

Ricardo Garcia-Salcedo, Tame Gonzalez, Israel Quiros, and Michael Thompson-Montero
gr-qc/1301.6832
Comments: 9 pages, no figures. arXiv admin note: substantial text overlap with arXiv:1211.2738

Galilean Islands in Eternally Inflating Background

Zhi-Guo Liu, Yun-Song Piao
gr-qc/1301.6833
Comments: 5 pages, 4 figs

Chaotic dynamics of the Bianchi IX universe in Gauss-Bonnet gravity

Edward J. Kim and Shinsuke Kawai
gr-qc/1301.6853
Comments: 9 pages, 8 figures, REVTex 4

Gravitationally modified wormholes without exotic matter

Tiberiu Harko, Francisco S. N. Lobo, M. K. Mak, Sergey V. Sushkov
gr-qc/1301.6878
Comments: 4 pages

Inital data for perturbed Kerr black holes on hyperboloidal slices

David Schinkel and Marcus Ansorg and Rodrigo Panosso Macedo
gr-qc/1301.6984
Comments: 13 pages, 5 figures, submitted to Physical Review D

Cosmological model with nonminimal derivative coupling of scalar fields in five dimensions.

Agus Suroso, Freddy P. Zen
Server

High Energy Physics - Experiment

Mass hierarchy discrimination with atmospheric neutrinos in large volume ice/water Cherenkov detectors

D.Franco, C.Jollet, A.Kouchner, V.Kulikovskiy, A.Meregaglia, S.Perasso, T.Pradier, A.Tonazzo and V.Van Elewyck
hep-ex/1301.4332
Comments: 23 pages, 16 figures

Analysis of the resonant components in B0->J/\psi pi+pi-

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. Andreassen, R. B. Appleby, O. Aquines Gutierrez, F. Archilli, A. Artamonov, M. Artuso, E. Aslanides, G. Auriemma, S. Bachmann, J. J. Back, C. Baesso, V. Balagura, W. Baldini, R. J. Barlow, C. Barschel, S. Barsuk, W. Barter, 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{\o}rnstad, T. Blake, F. Blanc, C. Blanks, J. Blouw, S. Blusk, et al.
hep-ex/1301.5347
Comments: Submitted to Physical Rev. D, 33 pages 17 figures
Report-no: LHCb-PAPER-2012-045; CERN-PH-EP-2013-004

Search for a Higgs boson in diphoton final states with the D0 detector in 9.6 fb-1 of p-pbar collisions at sqrt(s)=1.96 TeV

D0 Collaboration
hep-ex/1301.5358
Comments: 16 pages, 13 figures, 4 tables; submitted to Phys. Rev. D
Report-no: FERMILAB-PUB-13-027-E

First LHC results on coherent J/psi photoproduction in ultra-peripheral Pb-Pb collisions at sqrt{s_NN} = 2.76 TeV

J. D. Tapia Takaki
hep-ex/1301.5557
Comments: Presented at DIFFRACTION 2012: International Workshop on Diffraction in High-Energy Physics. Puerto del Carmen, Canary Islands, 10-15 September 2012
Journal-ref: Phys.Lett. B718 (2013) 1273-1283

Direct CP violation in charmless B decays at BaBar

Eugenia Maria Teresa Irene Puccio, for the BaBar Collaboration
hep-ex/1301.5668
Comments: Proceedings of CKM 2012, the 7th International Workshop on the CKM Unitarity Triangle, University of Cincinnati, USA, 28 September - 2 October 2012

Spin physics at A Fixed-Target ExpeRiment at the LHC (AFTER@LHC)

A. Rakotozafindrabe, M. Anselmino, R. Arnaldi, S. J. Brodsky, V. Chambert, J. P. Didelez, E. G. Ferreiro, F. Fleuret, B. Genolini, C. Hadjidakis, J. P. Lansberg, C. Lorce, P. Rosier, I. Schienbein, E. Scomparin and U. I. Uggerhoj
hep-ex/1301.5739
Comments: Contributed to the 20th International Spin Physics Symposium, SPIN2012, 17-22 September 2012, Dubna, Russia, 4 pages, LaTeX

Measurement of the top-antitop production cross section in the tau+jets channel in pp collisions at sqrt(s) = 7 TeV

CMS Collaboration
hep-ex/1301.5755
Comments: Submitted to Eur. Phys. J. C
Report-no: CMS-TOP-11-004; CERN-PH-EP-2012-374

Global CKM Fits with the Scan Method

Gerald Eigen, Gregory Dubois-Felsmann, David G. Hitlin, Frank C. Porter
hep-ex/1301.5867
Comments: 7 pages, 6 figures

Report-no: CALT 68-2902

Search for Charged Higgs bosons: Combined Results Using LEP Data

Aleph, Delphi, L3 and OPAL Collaborations, the LEP working group for Higgs boson searches
hep-ex/1301.6065
Comments: 19 pages, 9 figures
Report-no: CERN-PH-EP-2012-369

Search for the standard model Higgs boson in $\bm{\ell\nu}$+jets final states in 9.7~fb$\bm{^{-1}}$ of $\bm{p\bar{p}}$ collisions with the D0 detector

D0 Collaboration
hep-ex/1301.6122
Report-no: FERMILAB-PUB-13-030-E

Precision measurement of charged pion and kaon multiplicities in electron-positron annihilation at Q = 10.52 GeV

Belle Collaboration: M. Leitgab, R. Seidl, M. Grosse Perdekamp, A. Vossen, I. Adachi, H. Aihara, D. M. Asner, V. Aulchenko, T. Aushev, A. M. Bakich, B. Bhuyan, A. Bondar, A. Bozek, M. Bra\v{c}ko, J. Brodzicka, T. E. Browder, V. Chekelian, A. Chen, P. Chen, B. G. Cheon, K. Chilikin, K. Cho, V. Chobanova, Y. Choi, D. Cinabro, J. Dalseno, Z. Dr\'asal, D. Dutta, S. Eidelman, D. Epifanov, H. Farhat, J. E. Fast, V. Gaur, N. Gabyshev, R. Gillard, F. Giordano, Y. M. Goh, B. Golob, J. Haba, K. Hayasaka, H. Hayashii, Y. Hoshi, W.-S. Hou, Y. B. Hsiung, H. J. Hyun, T. Iijima, A. Ishikawa, R. Itoh, W. W. Jacobs, T. Julius, J. H. Kang, P. Kapusta, E. Kato, T. Kawasaki, H. J. Kim, H. O. Kim, J. B. Kim, J. H. Kim, M. J. Kim, J. Klucar, B. R. Ko, P. Kody\v{s}, R. T. Kouzes, P. Kri\v{z}an, P. Krokovny, R. Kumar, et al.
hep-ex/1301.6183
Comments: 17 pages, 7 figures, submitted to PRL
Report-no: Belle Preprint 2013-2, KEK Preprint 2012-38

Search for magnetic monopoles in polar volcanic rocks

K. Bendtz, D. Milstead, H.-P. H\"achler, A. M. Hirt, P. Mermod, P. Michael, T. Sloan, C. Tegner, S. B. Thorarinsson
hep-ex/1301.6530
Comments: 6 pages with references, 1 table, 1 figure, submitted to Phys. Rev. Lett. (2013)

Searches for very rare decays to purely leptonic final states at LHCb

Mathieu Perrin-Terrin
hep-ex/1301.6575
Comments: 6 pages, 5 figures, ICHEP 2012: 36th International Conference on High Energy Physics, Melbourne, Australia

Six "beyond Collins and Sivers" transverse spin asymmetries at COMPASS

Bakur Parsamyan
hep-ex/1301.6615
Comments: Contribution given at the 20th International Symposium on Spin Physics (SPIN2012) JINR, Dubna, Russia, September 17 - 22, 2012. To be published in "Physics of Elementary Particles and Atomic Nuclei" review journal

Combination of searches for the Higgs boson using the full CDF data set

CDF Collaboration, T. Aaltonen and others
hep-ex/1301.6668
Comments: Submitted to PRD
Report-no: FERMILAB-PUB-13-031-E

Measurement of hard double-parton interactions in W->lv+ 2 jet events at sqrt(s)=7 TeV with the ATLAS detector

ATLAS Collaboration
hep-ex/1301.6872
Comments: 23 pages plus author list (45 pages total), 10 figures, 2 tables, submitted to NJP. All figures including auxiliary figures are available at http://atlas.web.cern.ch/Atlas/GROUPS/PHYSICS/PAPERS/STDM-2011-29/
Report-no: CERN-PH-EP-2012-355

Measurement of the mixing angle in pseudoscalar meson sector in π^{-} and K^{-} beams with GAMS-4π Setup

S.V. Donskov, V.N. Kolosov, A.A. Lednev, Yu.V. Mikhailov, V.A. Polyakov, V.D. Samoylenko, G.V. Khaustov

hep-ex/1301.6987
Comments: 6 pages, 4 figures, 1 table, to be submitted in European physical journal C
Report-no: IHEP 2012-22

Search for $B_s \rightarrow \mu^{+}\mu^{-}$ and $B_d \rightarrow \mu^{+}\mu^{-}$ decays with the full CDF Run II data set

CDF Collaboration
hep-ex/1301.7048
Comments: 34 pages, 28 figures, submitted to Phys. Rev. D
Report-no: Fermilab-Pub-13-034

High Energy Physics - Lattice

Nucleon mass and strange content from (2+1)-flavor Domain Wall Fermion

Chulwoo Jung, for the RBC Collaboration and for the UKQCD Collaboration
hep-lat/1301.5397
Comments: 7 pages, 3 figures, Proceedings of the 30th International Symposium on Lattice Field Theory, June 24-29, 2012, Cairns, Australia, PoS(Lattice2012)164

Nucleon-Nucleon Scattering Parameters in the Limit of SU(3) Flavor Symmetry

S. R. Beane, E. Chang, S. D. Cohen, W. Detmold, P. Junnarkar, H. W. Lin, T. C. Luu, K. Orginos, A. Parreno, M. J. Savage, A. Walker-Loud
hep-lat/1301.5790
Comments: 17 pages, 29 figures
Report-no: MIT-CTP-4434; ICCUB-13-040; JLAB-THY-13-1689; NT@UW-13-05; NT-LBNL-13-004; UCB-NPAT-13-004; UNH-13-2

Thermodynamic properties of QCD in external magnetic fields

G. S. Bali, F. Bruckmann, M. Constantinou, M. Costa, G. Endrodi, Z. Fodor, S. D. Katz, S. Krieg, H. Panagopoulos, A. Schafer, K. K. Szabo
hep-lat/1301.5826
Comments: 13 pages, 9 figures, talks presented by FB and GE at Xth Quark Confinement and the Hadron Spectrum, 8-12 October 2012, TUM Campus Garching, Munich, Germany

Review of recent highlights in lattice calculations at finite temperature and finite density

P. Petreczky
hep-lat/1301.6188
Comments: Invited plenary talk at Xth Quark Confinement and the Hadron Spectrum conference, October 8-12, 2012, Garching, Munich, Germany, 15pages, LaTeX uses PoS.cls
Report-no: BNL-99641-2013-JA

Conserved charge fluctuations with HISQ fermions

Christian Schmidt
hep-lat/1301.6526
Comments: 8 pages, 4 figures, talk presented at the Xth Quark Confinement and the Hadron Spectrum, October 8-12, 2012, TUM Campus Garching, Munich, Germany

Vortex liquid in magnetic-field-induced superconducting vacuum of quenched lattice QCD

V. V. Braguta, P. V. Buividovich, M. N. Chernodub, A. Yu. Kotov and M. I. Polikarpov
hep-lat/1301.6590
Comments: 8 pages, 5 figures; talk given at "Quark Confinement and the Hadron Spectrum X", Munich, Germany, Oct. 8-12, 2012
Journal-ref: Proceedings of Science (Confinement X) 083 (2013)

Gauge theory of Lorentz group as a source of the dynamical electroweak symmetry breaking

M.A.Zubkov
hep-lat/1301.6971
Comments: Latex, 9 pages

High Energy Physics - Phenomenology

NLO EW and QCD proton-proton cross section calculations with mcsanc-v1.01

Sergey G. Bondarenko , Andrey A. Sapronov
hep-ph/1301.3687

Confinement from Correlation Functions

Leonard Fister and Jan M. Pawlowski
hep-ph/1301.4163
Comments: 23 pages, 28 figures

The Roberge-Weiss transition and 't Hooft loops

Kouji Kashiwa, Robert D. Pisarski
hep-ph/1301.5344
Comments: 21 page, 4 figures, 1 table
Report-no: RBRC-993; BNL-99061-2013-JA

Inferring the nature of the boson at 125-126 GeV

Tanmoy Modak, Dibyakrupa Sahoo, Rahul Sinha and Hai-Yang Cheng
hep-ph/1301.5404
Comments: 13 Pages, 3 figures
Report-no: IMSc/2013/01/1

Obtaining |V(ub)| exclusively: a theoretical perspective

Aoife Bharucha
hep-ph/1301.5457
Comments: 4 pages, 1 figure, invited talk at CKM 2012

Non-Gaussianity from Non-minimal Coupling: a Hybrid Model

Jinsu Kim, Yoonbai Kim, Seong Chan Park
hep-ph/1301.5472
Comments: 25 pages, 4 figures

Higgs decay to goldstini and its observability at the LHC

Tao Liu, Lin Wang, Jin Min Yang
hep-ph/1301.5479
Comments: 12 pages, 2 figures

Particle-Antiparticle Mixing, CP Violation and Rare K and B Decays in a Minimal Theory of Fermion Masses

Andrzej J. Buras, Jennifer Girrbach and Robert Ziegler
hep-ph/1301.5498
Comments: 75 pages, 12 figures
Report-no: FLAVOUR(267104)-ERC-30

Models for Neutrino Masses and Mixings

Stefan Antusch
hep-ph/1301.5511
Comments: 8 pages, 2 figures; plenary talk presented at the XXV International Conference on Neutrino Physics and Astrophysics (Neutrino 2012), Kyoto, Japan, June 3-9 2012

Search for GeV-scale sterile neutrinos responsible for active neutrino oscillations and baryon asymmetry of the Universe

S. N. Gninenko, D. S. Gorbunov, and M. E. Shaposhnikov
hep-ph/1301.5516
Comments: 20 pages, Invited Review article for the Special Issue on Neutrino Physics

Gluon Wavefunctions and Amplitudes on the Light-Front

Christian A. Cruz-Santiago
hep-ph/1301.5598
Comments: 6 pages, 4 figures, contribution to the proceedings of Light Cone 2012 conference, Krakow, Poland, July 8-13, 2012

A Higgs-Like Scalar With Mixed-Parity and Standard-Model-Like Couplings Could be Further Evidence for Underlying Massless SU(5) Unification

Alan R. White
hep-ph/1301.5628

Shift in weak phase γ due to CP asymmetries in D decays to two pseudoscalar mesons

Bhubanjyoti Bhattacharya, David London, Michael Gronau, and Jonathan L. Rosner
hep-ph/1301.5631
Comments: 15 pages, 3 figures, submitted to Phys. Rev. D. Text and references added
Report-no: EFI 12-36; UdeM-GPP-TH-13-219; TECHNION-PH-13-1

Three-loop calculations in non-Abelian gauge theories

O. V. Tarasov, A. A. Vladimirov
hep-ph/1301.5645
Comments: 21 pages, uses axodraw.sty
Report-no: JINR E2-80-483

The 130 GeV gamma-ray line and Sommerfeld enhancements

Jing Chen and Yu-Feng Zhou
hep-ph/1301.5778
Comments: 21 pages, 16 figures; added references

Factorization in high energy nucleus-nucleus collisions

F. Gelis
hep-ph/1301.5784
Comments: proceedings of the conference ISMD 2012, Kielce, Poland

Neutron Transverse-Momentum Distributions and Polarized 3He within Light-Front Hamiltonian Dynamics

Emanuele Pace, Giovanni Salme', Sergio Scopetta, Alessio Del Dotto, Matteo Rinaldi
hep-ph/1301.5787
Comments: 4 pages, 2 figures, Presented at the 20th International IUPAP Conference on Few-Body Problems in Physics, 20 - 25 August, 2012, Fukuoka, Japan

Studies of highly-boosted top quarks near the TeV scale using jet masses at the LHC

B. Auerbach, S. V. Chekanov, N. Kidonakis
hep-ph/1301.5810
Comments: 7 pages, 5 figures, to be submitted to Phys.Rev.D
Report-no: ANL-HEP-PR-13-5

Vacuum Stability in the Standard Model

Yong Tang
hep-ph/1301.5812
Comments: 11 pages, 4 figures, invited for Modern Physics Letter A

Lepton mass hierarchy from the quark mass hierarchy in the light of the quark Technicolor Dynamics

Vladimir Sauli
hep-ph/1301.5816
Comments: 14 pages

Enhanced J/Psi production from double parton scatterings in nucleus-nucleus collisions at the Large Hadron Collider

David d'Enterria and Alexander M. Snigirev

hep-ph/1301.5845
Comments: 8 pages, 1 figure, 1 table

Leptonic decay-constant ratio f_{K^+}/f_{pi^+} from lattice QCD with physical light quarks

A. Bazavov, C. Bernard, C. DeTar, J. Foley, W. Freeman, Steven Gottlieb, U. M. Heller, J. E. Hetrick, J. Kim, J. Laiho, L. Levkova, M. Lightman, J. Osborn, S. Qiu, R. L. Sugar, D. Toussaint, R. S. Van de Water, R. Zhou
hep-ph/1301.5855
Comments: 6 pages, 1 table, 2 figures; v2: typo corrected in abstract

Custodial Leptons and Higgs Decays

Adrian Carmona and Florian Goertz
hep-ph/1301.5856
Comments: 32 pages, 12 figures

Automated mass spectrum generation for new physics

Adam Alloul, Jorgen D'Hondt, Karen De Causmaecker, Benjamin Fuks, Michel Rausch de Traubenberg
hep-ph/1301.5932
Comments: 11 pages, 1 table
Report-no: CERN-PH-TH/2013-012, IPHC-PHENO-13-01

Implications of theta_13 on Fritzsch-like lepton mass matrices

Priyanka Fakay, Samandeep Sharma, Rohit Verma, Gulsheen Ahuja and Manmohan Gupta
hep-ph/1301.5970
Comments: 18 pages, 8 figures. arXiv admin note: substantial text overlap with arXiv:hep-ph/0607074, arXiv:hep-ph/0703005, arXiv:0904.4534

Neutrino textures and charged lepton flavour violation in light of theta13, MEG and LHC data

Mirco Cannoni, John Ellis, Mario E. Gomez, Smaragda Lola
hep-ph/1301.6002
Comments: 20 pages, 6 figures

Analysis of the triplet production by the circularly polarized photon at high energies

G. I. Gakh, M. I. Konchatnij, I. S. Levandovsky, and N. P. Merenkov
hep-ph/1301.6010
Comments: 26 pages, 20 figures, submitted to JETP

On the origin and movement of the poles in the coupled channels model for $\bar{K}N$ interactions

Ales Cieply, Jaroslav Smejkal
hep-ph/1301.6032
Comments: 5 pages, to appear in Proceedings of the FB20 conference, August 20-25, 2012, Fukuoka, Japan

Trapped phonons

Massimo Mannarelli
hep-ph/1301.6074
Comments: 8 pages, 5 figures, talk given at the conference "Xth Quark Confinement and the Hadron Spectrum", October 8-12, 2012, TUM Campus Garching, Munich, Germany

Supersymmetric SO(10) GUTs with sliding scales

C. Arbelaez, R. M. Fonseca, M. Hirsch, J. C. Romao
hep-ph/1301.6085
Report-no: CFTP/13-002, IFIC/13-02

Medium-induced QCD cascade: democratic branching and wave turbulence

Jean-Paul Blaizot, Edmond Iancu, Yacine Mehtar-Tani
hep-ph/1301.6102
Comments: 4 pages, 3 figures

Adiabaticity and color mixing in tetraquark spectroscopy

Javier Vijande, Alfredo Valcarce, Jean-Marc Richard
hep-ph/1301.6212
Comments: 5 pages, 3 figs

Chiral soliton model at finite temperature and density

Hong Mao, Tianzhen Wei and Jinshuang Jin
hep-ph/1301.6227
Comments: 12 pages, 7 figures

Semileptonic decays $B \to D^{(*)} l\nu$ in the perturbative QCD factorization approach

Ying-Ying Fan, Wen-Fei Wang, and Zhen-Jun Xiao
hep-ph/1301.6246
Comments: 12 pages, 1 ps figure

A Model of Four Generation Fermions and Cold Dark Matter and Matter-Antimatter Asymmetry

Wei-Min Yang
hep-ph/1301.6253
Comments: 22 pages, 6 figures. arXiv admin note: substantial text overlap with arXiv:1301.0076

Interaction between Vortices in CFL Phase

Sedigheh Deldar, Hadi Lookzadeh
hep-ph/1301.6274
Comments: 3 pages, 1 figure, poster presented at "Quark Confinement and the Hadron Spectrum X" (8 - 12 October 2012, TUM Campus Garching, Munich, Germany)

Heavy gravitino in hybrid inflation

Masahiro Kawasaki, Naoya Kitajima, Kazunori Nakayama and Tsutomu T. Yanagida
hep-ph/1301.6281
Comments: 17 pages, 6 figures
Report-no: ICRR-Report-646-2012-35; IPMU 13-0021; UT-13-02

Composite Leptons at the LHC

Herbert W. Hamber and Reiko Toriumi
hep-ph/1301.6335
Comments: 11 pages

The phase diagram of nuclear and quark matter at high baryon density

Kenji Fukushima and Chihiro Sasaki
hep-ph/1301.6377
Comments: 79 pages, 35 figures, 2 tables; submitted to Prog.Part.Nucl.Phys

Pair Production of a 125 GeV Higgs Boson in MSSM and NMSSM at the LHC

Junjie Cao, Zhaoxia Heng, Liangliang Shang, Peihua Wan, Jin Min Yang
hep-ph/1301.6437
Comments: 15 pages, 5 figures

The Higgs boson mixes with an SU(2) septet representation

Junji Hisano, Koji Tsumura
hep-ph/1301.6455
Comments: 14 pages, 13 eps files
Report-no: IPMU13-0022

Confirming the molecular nature of the $Z_b(10610)$ and the $Z_b(10650)$

Martin Cleven, Qian Wang, Feng-Kun Guo, Christoph Hanhart, Ulf-G. Mei{\ss}ner and Qiang Zhao
hep-ph/1301.6461
Comments: 18 pages, 2 figures

A Way to Understand the Mass Generation

W-Y. Pauchy Hwang
hep-ph/1301.6464
Comments: arXiv admin note: substantial text overlap with arXiv:1207.6443

Four-loop corrections with two closed fermion loops to fermion self energies and the lepton anomalous magnetic moment

Roman Lee, Peter Marquard, Alexander V. Smirnov, Vladimir A. Smirnov, Matthias Steinhauser
hep-ph/1301.6481
Comments: 21 pages
Report-no: SFB/CPP-13-03, TTP13-02

Associated photon and heavy quark production at high energy within k_T-factorization

N.P. Zotov, A.V. Lipatov, M.A. Malyshev
hep-ph/1301.6515
Comments: Talk presented at International Workshop on Diffraction in High-Energy Physics, DIFFRACTION 2012

Baryon Transverse Momentum Distributions at LHC and the "Knee" in Cosmic Proton Spectrum

O.Piskounova
hep-ph/1301.6539
Comments: 8 pages, 5 figures, LaTeX

Searching for Charged Higgs Boson in Polarized Top Quark

Qing-Hong Cao, Xia Wan, Xiao-ping Wang, Shou-hua Zhu
hep-ph/1301.6608
Comments: 20 pages, 11 figures, 2 tables

Analytical formulas, general properties and calculation of transport coefficients in the hadron gas: shear and bulk viscosities

Oleg N. Moroz
hep-ph/1301.6670
Comments: 65 pages, 10 figures. arXiv admin note: substantial text overlap with arXiv:1112.0277

Progress in the Determination of the Partonic Structure of the Proton

Stefano Forte, Graeme Watt
hep-ph/1301.6754
Comments: 50 pages, 9 figures. Invited contribution to Annual Review of Nuclear and Particle Science, Volume 63
Report-no: IFUM-1005-FT; ZU-TH 02/13

Spontaneous CP violation in A4xSU(5) with Constrained Sequential Dominance 2

Stefan Antusch, Stephen F. King, Martin Spinrath
hep-ph/1301.6764
Comments: 25 pages, 6 figures
Report-no: MPP-2013-13, SISSA 04/2013/FISI

Realistic neutron star constraints on bosonic asymmetric dark matter

Nicole F. Bell, Andrew Melatos and Kalliopi Petraki
hep-ph/1301.6811
Comments: 14 pages, 4 figures
Report-no: NIKHEF-2013-002

Heavy quark dynamics for charm and bottom flavor on Fermi surface at zero temperature

S. Yasui and K. Sudoh
hep-ph/1301.6830
Comments: 25 pages, 2 figures

Polarisation studies in H-t production

R. M. Godbole, L. Hartgring, I. Niessen and C. D. White
hep-ph/1301.6877
Comments: 6 pages, 6 figures; Proceedings of "Prospects for Charged Higgs Discovery at Colliders", October 2012, Uppsala, Sweden

New insights into soft gluons and gravitons

C. D. White
hep-ph/1301.6887

Comments: 6 pages, 3 figures; Proceedings of 36th International Conference on High Energy Physics, July 4-11, 2012, Melbourne, Australia

Models of mixed hadron-quark-gluon matter

V.I. Yukalov and E.P. Yukalova
hep-ph/1301.6910
Comments: Latex file, 16 pages, 5 figures
Journal-ref: Proc. Sci. (ISHEPP) (2012) 046

$ZZ\gamma$ and $Z\gamma\gamma$ anomalous couplings in γp collision at the LHC

A. Senol
hep-ph/1301.6914
Comments: 9 pages, 6 figures

Feynman Graphs

Stefan Weinzierl
hep-ph/1301.6918
Comments: 24 pages, lectures given at the LHCPHENOnet school on Integration, Summation and Special Functions in Quantum Field Theory

Chiral Perturbation Theory and Mesons

Johan Bijnens
hep-ph/1301.6953
Comments: 13 pages, plenary talk presented at The 7th International Workshop on Chiral Dynamics, August 6 -10, 2012, Jefferson Lab, Newport News, Virginia, USA
Report-no: LU TP 13-03

Dispersive representation of the pion vector form factor in $\tau\to\pi\pi\nu_\tau$ decays

D. G\'omez Dumm and P. Roig
hep-ph/1301.6973
Comments: 21 pages, 4 figures
Report-no: UAB-FT-725

New Physics and Single Top Production

Jiang-Hao Yu
hep-ph/1301.6976
Comments: Proceedings of CKM 2012, the 7th International Workshop on the CKM Unitarity Triangle, University of Cincinnati, USA, 28 September - 2 October 2012
Report-no: UTTG-03-13

Photon polarisation in electron-seeded pair-creation cascades

B. King, N. Elkina, H. Ruhl
hep-ph/1301.7001

Bethe-Heitler type radiative corrections to deeply virtual neutrinoproduction of mesons

B. Z. Kopeliovich, Ivan Schmidt, M. Siddikov
hep-ph/1301.7014
Comments: 15 pages, 4 Figures. We provide a code which can be used for evaluations with various GPD parametrizations (see "Ancillary files" attached to this arXiv preprint)
Report-no: USM-TH-311

High Energy Physics - Theory

Numerical Exploration of Soliton Creation

Henry Lamm, Tanmay Vachaspati
hep-th/1301.4980
Comments: 14 pages, 15 figures

Nonlinear field theory with topological solitons: Skyrme models

C. Adam, C. Naya, J. Sanchez-Guillen, A. Wereszczynski

hep-th/1301.5326

Comments: 13 pages, 5 figures; Proceedings of the Barcelona Postgrad Encounters on Fundamental Physics

Irregular Singularities in the H3+ WZW Model

Davide Gaiotto and Joel Lamy-Poirier

hep-th/1301.5342

Comments: 31 pages, 2 figures

Duality-invariant bimetric formulation of linearized gravity

Claudio Bunster, Marc Henneaux, Sergio H\"ortner

hep-th/1301.5496

Comments: Based in part on the talk "Gravitational electric-magnetic duality" given by one of us (MH) at the 8-th Workshop "Quantum Field Theory and Hamiltonian Systems" (QFTHS), 19-22 September 2012, Craiova, Romania

Effects of Twisted Noncommutativity in Multi-particle Hamiltonians

Zhanna Kuznetsova and Francesco Toppan

hep-th/1301.5501

Comments: 11 pages

Nonlinear Partially Massless from Massive Gravity?

S. Deser, M. Sandora and A. Waldron

hep-th/1301.5621

Comments: 7 pages LaTeX

Cosmological Constant, Near Brane Behavior and Singularities

Fri{\eth}rik Freyr Gautason, Daniel Junghans and Marco Zagermann

hep-th/1301.5647

Comments: 29 pages, no figures

Report-no: ITP-UH-02/13

QED effective action for an O(2)xO(3) symmetric field in the full mass range

N. Ahmadiniaz, A. Huet, A. Raya and C. Schubert

hep-th/1301.5669

Comments: 6 pages, 3 figures, Poster presented by N. Ahmadiniaz at the "XV Mexican School on Particles and Fields", September 6-15, 2012, Puebla, Mexico

Stripe Instabilities of Geometries with Hyperscaling Violation

Norihiro Iizuka, Kengo Maeda

hep-th/1301.5677

Comments: 17 pages, 7 figures

A Single Field Inflation Model with Large Local Non-Gaussianity

Xingang Chen, Hassan Firouzjahi, Mohammad Hossein Namjoo, Misao Sasaki

hep-th/1301.5699

Comments: 4 pages, 2 figures

Report-no: YITP-13-3; IPM/A-2012/21

Width of photon decay in magnetic field: elementary semiclassical derivation and sensitivity to Lorentz violation

Petr Satunin

hep-th/1301.5707

Comments: 12 pages, 1 figure

Shapes of primordial non-Gaussianities in the Horndeski's most general scalar-tensor theories

Antonio De Felice, Shinji Tsujikawa

hep-th/1301.5721

Comments: 26 pages, 8 figures

Overview of large N QCD with chemical potential at weak and strong coupling

Timothy J. Hollowood and Joyce C. Myers
hep-th/1301.5750
Comments: 5 pages, 3 figures, Proceedings for XQCD 2012, August 21-23, 2012, at George Washington University, Washington, DC, USA, +2 additional references

On Singular Fibres in F-Theory

Andreas P. Braun and Taizan Watari
hep-th/1301.5814
Comments: 35 pages, 10 figures
Report-no: KCL-mth-13-01; IPMU12-0235

Quantization of massive Weyl fields in vacuum

Maxim Dvornikov
hep-th/1301.5865
Comments: 8 pages, LaTeX2e; submitted to the proceedings of 17th International Seminar on High Energy Physics: Quarks-2012 (Yaroslavl, Russia, June 4-10, 2012)

3d N=2 Theories from Cluster Algebras

Yuji Terashima, Masahito Yamazaki
hep-th/1301.5902
Comments: 50 pages, 29 figures
Report-no: PUTP-2437

Holographic Theory of Accelerated Observers, the S-matrix, and the Emergence of Effective Field Theory

Tom Banks, Willy Fischler
hep-th/1301.5924
Comments: 17 Pages, Latex2e
Report-no: RUNHETC-2013-01 SCIPP-13-01 UTTG-02-13 TCC-002-13

Thermodynamic Volumes and Isoperimetric Inequalities for de Sitter Black Holes

Brian P. Dolan, David Kastor, David Kubiznak, Robert B. Mann, Jennie Traschen
hep-th/1301.5926
Comments: 13 pages, no figures
Report-no: DIAS-STP-13-1, pi-stronggrv-314

Holography and hydrodynamics for EMD theory with two Maxwell fields

Milena Smolic
hep-th/1301.6020
Comments: 50 pages, no figures

On Non-Gaussianities in Two-Field Poly-Instanton Inflation

Xin Gao and Pramod Shukla
hep-th/1301.6076
Comments: 36 pages, 6 figures, arXiv admin note: text overlap with:1208.1160 in review section 2
Report-no: MPP-2013-15

Phases of large N vector Chern-Simons theories on $S^2 \times S^1$

Sachin Jain, Shiraz Minwalla, Tarun Sharma, Tomohisa Takimi, Spenta R. Wadia, Shuichi Yokoyama
hep-th/1301.6169
Comments: 85 pages, 25 figures
Report-no: TIFR/TH/13-02, ICTS-2012-14

Infrared self-consistent solutions of bispinor QED3

Tomasz Radozycki
hep-th/1301.6175
Comments: Latex, 9 pages, 6 figures

Light field integration in SUGRA theories

Diego Gallego
hep-th/1301.6177
Comments: 7 pages

Critical behavior of the PT-symmetric $i\phi^3$ quantum field theory

Carl M. Bender, V. Branchina, and Emanuele Messina
hep-th/1301.6207
Comments: 8 pages, 1 figure

Inconsistencies from a Running Cosmological Constant

Herbert W. Hamber and Reiko Toriumi
hep-th/1301.6259
Comments: 34 pages. arXiv admin note: text overlap with arXiv:0704.2895

On the pattern of black hole information release

I. Y. Park
hep-th/1301.6320
Comments: 20 pages

On non-equilibrium physics and string theory

Nickolas Gray, Djordje Minic, and Michel Pleimling
hep-th/1301.6368
Comments: 29 pages, one figure, invited review article to appear in Int. J. Mod. Phys. A

Nucleon-Meson Couplings in One Boson Exchange Potential using Non-Critical String Theory

M. R. Pahlavani, J. Sadeghi, R. Morad
hep-th/1301.6399

The Preon Sector of the SLq(2) (Knot) Model

Robert J. Finkelstein
hep-th/1301.6440
Comments: 26 Pages

Study of field fluctuations and their localization in a thick braneworld generated by gravity non-minimally coupled to a scalar field with a Gauss-Bonnet term

Gabriel Germ\'an, Alfredo Herrera--Aguilar, Dagoberto Malag\'on--Morej\'on, Israel Quiros and Rold\~ao da Rocha
hep-th/1301.6444
Comments: 25 pages in latex, no figures. arXiv admin note: text overlap with arXiv:1105.5479

Lorentz Covariant Lagrangians of Self-dual Gauge Fields

Wung-Hong Huang
hep-th/1301.6478
Comments: Latex, 18 pages

Coupling dimers to CDT - conceptual issues

Lisa Glaser
hep-th/1301.6483
Comments: To appear in the Proceedings of the 13th Marcel Grossmann Meeting on General Relativity

Radiation reaction from QED

Anton Ilderton and Greger Torgrimsson
hep-th/1301.6499
Comments: 5 pages, 1 figure

Stability of rapidly-rotating charged black holes in $AdS_5 \times S^5$

Micha Berkooz, Anna Frishman and Amir Zait
hep-th/1301.6524
Comments: 30 pages, 2 figures

Harrison metrics for the Schwarzschild black hole

Fang-Fang Yuan, Yong-Chang Huang
hep-th/1301.6548
Comments: Submitted to journal

Chiral magnetic effect and holography

Ingo Kirsch and Tigran Kalaydzhyan
hep-th/1301.6558
Comments: 8 pages, Proceedings to the conference "Xth Quark Confinement and the Hadron Spectrum", October 8-12, 2012, TUM Campus Garching, Munich, Germany
Journal-ref: PoS(Confinement X)262 (2012)
Report-no: DESY 13-016

Supersymmetric Completion of Gauss-Bonnet Combination in Five Dimensions

Mehmet Ozkan, Yi Pang
hep-th/1301.6622
Comments: 32 pages
Report-no: MIFPA-13-01

Defects, Super-Poincar\'{e} line bundle and Fermionic T-duality

Shmuel Elitzur, Boaz Karni, Eliezer Rabinovici and Gor Sarkissian
hep-th/1301.6639
Comments: 41 pages
Report-no: CERN-PH-TH/2013-013

Gravity duals of cyclic RG flows, with strings attached

Koushik Balasubramanian
hep-th/1301.6653
Comments: 20+6 pages, 4x3 figures

Non-Abelian T-duality and the AdS/CFT correspondence:new N=1 backgrounds

Georgios Itsios, Carlos Nunez, Konstadinos Sfetsos and Daniel C. Thompson
hep-th/1301.6755
Comments: 91 pages, 1 figure. Latex
Report-no: DMUS-MP-13/02

Chameleonic inflation

Kurt Hinterbichler, Justin Khoury, Horatiu Nastase, Rogerio Rosenfeld
hep-th/1301.6756
Comments: 27 pages, 4 figures

Supersymmetric Hidden Sectors for Heterotic Standard Models

Volker Braun, Yang Hui-He, Burt A. Ovrut
hep-th/1301.6767
Comments: 32 pages, 4 figures

The fate of flat directions in higher derivative gravity

Nabamita Banerjee and Suvankar Dutta and Ivano Lodato
hep-th/1301.6773
Comments: 36 pages

Classically Isospinning Hopf Solitons

Richard A. Battye and Mareike Haberichter
hep-th/1301.6803
Comments: 19 pages

On novel string theories from 4d gauge theories

Elias Kiritsis
hep-th/1301.6810
Comments: LateX, 17 pages. (v2) Removed showkeys command and added references
Report-no: CCTP-2013-01

The many surprises of maximal supergravity

Andrea Borghese, Adolfo Guarino and Diederik Roest
hep-th/1301.6919
Comments: Contribution to the proceedings of Barcelona Postgrad Encounters on Fundamental Physics

The Yang-Mills vacuum wave functional in three dimensions at weak coupling

Sebastian Krug and Antonio Pineda
hep-th/1301.6922

Amending the Vafa-Witten Theorem

Chuan Li and Qing Wang
hep-th/1301.7009
Comments: 5 pages
Report-no: TUHEP-TH-13178

Vacuum condensates, flavor mixing and spontaneous supersymmetry breaking

Antonio Capolupo, Marco Di Mauro
hep-th/1301.7016
Comments: 5 pages

Holographic duals to Poisson sigma models

D. V. Vassilevich
hep-th/1301.7029
Comments: revtex4, 4 pages

Nuclear Experiment (partial listing)

Study of the Onset of Deconfinement and Search for the Critical Point of Strongly Interacting Matter

Peter Seyboth
nucl-ex/1301.5823
Comments: presented at 42nd Int. Symposium on Multiparticle Dynamics, Kielce, Poland

Complete Angular Distributions of the Deuteron Photo-Disintegration Reaction in the Few GeV Region

Federico Ronchetti
nucl-ex/1301.5886
Comments: arXiv admin note: substantial text overlap with arXiv:hep-ph/0101129, arXiv:hep-ph/0006061, arXiv:hep-ph/0206213 by other authors

Search for \eta-->e+e- decay with the WASA experiment

Marcin Berlowski
nucl-ex/1301.6040
Comments: 4 pages, 8 figures
Journal-ref: EPJ Web of Conferences 37, 09007 (2012)

Event by event di-hadron correlations in Pb-Pb 2.76 TeV collisions from the ALICE experiment

Anthony R. Timmins for the ALICE collaboration
nucl-ex/1301.6084
Comments: 4 pages, Hot Quarks 2012

Study of the Λp Interaction Close to the Σ^+n and Σ^0p Thresholds

H. Machner, J. Haidenbauer, F. Hinterberger, A. Magiera, J.A. Niskanen, J. Ritman, R. Siudak
nucl-ex/1301.6089
Comments: accepted for publication Nucl. Phys. A

System Size Dependence of Transverse Momentum Correlations at RHIC

STAR Collaboration: L. Adamczyk, J. K. Adkins, G. Agakishiev, M. M. Aggarwal, Z. Ahammed, I. Alekseev, J. Alford, C. D. Anson, A. Aparin, D. Arkhipkin, E. Aschenauer, G. S. Averichev, J. Balewski, A. Banerjee, Z. Barnovska, D. R. Beavis, R. Bellwied, M. J. Betancourt, R. R. Betts, A. Bhasin, A. K. Bhati, Bhattarai, H. Bichsel, J. Bielcik, J. Bielcikova, L. C. Bland, I. G. Bordyuzhin, W. Borowski, J. Bouchet, A. V. Brandin, S. G. Brovko, E. Bruna, S. B\"ultmann, I. Bunzarov, T. P. Burton, J. Butterworth, H. Caines, M. Calder\'on de la Barca S\'anchez, D. Cebra, R. Cendejas, M. C. Cervantes, P. Chaloupka, Z. Chang, S. Chattopadhyay, H. F. Chen, J. H. Chen, J. Y. Chen, L. Chen, J. Cheng, M. Cherney, A. Chikanian, W. Christie, P. Chung, J. Chwastowski, M. J. M. Codrington, R. Corliss, J. G. Cramer, et al.
nucl-ex/1301.6633
Comments: 12 pages and 9 figures

Nuclear Theory (partial listing)

Incorporating Space-Time Within Medium-Modified Jet Event Generators

Abhijit Majumder
nucl-th/1301.5323
Comments: 13 pages, 8 figures, revtex

Neutrino emissivity of anisotropic neutron superfluids

L. B. Leinson
nucl-th/1301.5439
Comments: 22 pages, 6 figures

Threshold π^0 photoproduction in relativistic chiral perturbation theory

Marius Hilt, Stefan Scherer, Lothar Tiator
nucl-th/1301.5576
Comments: 21 pages, 9 figures
Report-no: MITP/13-008

Effect of Energy Loss On Azimuthal Correlation of charm and correlated charm decay in collision of lead nuclei at sqrt{s} = 2.76 A TeV

Mohammed Younus and Dinesh K. Srivastava
nucl-th/1301.5762
Comments: 8 pages, 3 Figures

Hydrodynamic Modeling of Heavy-Ion Collisions

Charles Gale, Sangyong Jeon, Bjoern Schenke
nucl-th/1301.5893
Comments: 27 pages, 7 figures, invited review for a special issue of International Journal of Modern Physics A

Baryon and meson screening masses

Kun-lun Wang, Yu-xin Liu, Lei Chang, Craig D. Roberts and Sebastian M. Schmidt
nucl-th/1301.6762
Comments: 21 pages, 12 figures, 1 table

Recent developments in SU(3) covariant baryon chiral perturbation theory

Lisheng Geng
nucl-th/1301.6815
Comments: 22 pages, 9 figures

Helicity separation in Heavy-Ion Collisions

Mircea Baznat, Konstantin Gudima, Alexander Sorin and Oleg Teryaev
nucl-th/1301.7003
Comments: 7 pages, 6 figures

Physics (partial listing)

Background Rejection in the DMTPC Dark Matter Search Using Charge Signals

J. P. Lopez, D. Dujmic, S. Ahlen, J. B. R. Battat, C. Deaconu, P. Fisher, S. Henderson, A. Inglis, A. Kaboth, J. Monroe, G. Sciolla, H. Tomita, H. Wellenstein, R. Yamamoto

physics/1301.5685

Comments: 18 pages, 12 figures. Preprint accepted by NIM A

Journal-ref: Nucl.Instr.Meth. A696 (2012), 121-128

Renormalized entropy for one dimensional discrete maps: periodic and quasi-periodic route to chaos and their robustness

O. Afsar and G. B. Bagci and U. Tirnakli

physics/1301.5747

Comments: 14 pages, 7 figures

Interferometry with Bose-Einstein Condensates in Microgravity

H. M\"untinga, H. Ahlers, M. Krutzik, A. Wenzlawski, S. Arnold, D. Becker, K. Bongs, H. Dittus, H. Duncker, N. Gaaloul, C. Gherasim, E. Giese, C. Grzeschik, T. W. H\"ansch, O. Hellmig, W. Herr, S. Herrmann, E. Kajari, S. Kleinert, C. L\"ammerzahl, W. Lewoczko-Adamczyk, J. Malcolm, N. Meyer, R. Nolte, A. Peters, M. Popp, J. Reichel, A. Roura, J. Rudolph, M. Schiemangk, M. Schneider, S. T. Seidel, K. Sengstock, V. Tamma, T. Valenzuela, A. Vogel, R. Walser, T. Wendrich, P. Windpassinger, W. Zeller, T.van Zoest, W. Ertmer, W. P. Schleich, E. M. Rasel

physics/1301.5883

Comments: 8 pages, 3 figures; 8 pages of supporting material

physics/1301.5977

physics/1301.6020

physics/1301.6032

Extra-dimensional metamaterials: simple models of inflation and metric signature transitions

Igor I. Smolyaninov

physics/1301.6060

Comments: 14 pages, 1 figure

physics/1301.6074

physics/1301.6102

Research Proposal for an Experiment to Search for the Decay {\mu} -> eee

A. Blondel, A. Bravar, M. Pohl, S. Bachmann, N. Berger, M. Kiehn, A. Sch\"oning, D. Wiedner, B. Windelband, P. Eckert, H.-C. Schultz-Coulon, W. Shen, P. Fischer, I. Peri\'c, M. Hildebrandt, P.-R. Kettle, A. Papa, S. Ritt, A. Stoykov, G. Dissertori, C. Grab, R. Wallny, R. Gredig, P. Robmann, U. Straumann

physics/1301.6113

Comments: Research proposal submitted to the Paul Scherrer Institute Research Committee for Particle Physics at the Ring Cyclotron, 104 pages

Simulation of the CMS Resistive Plate Chambers

R. Hadjiiska , L. Litov , B. Pavlov , P. Petkov , A. Dimitrov , 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. Aleksandrov , V. Genchev , P. Iaydjiev , M. Rodozov , M. Shopova , G. Sultanov , Y. Ban , J. Cai , Z. Xue , Y. Ge , Q. Li , S. Qian , C. Avila , L.F. Chaparro , J.P. Gomez , B. Gomez Moreno , A.F. Osorio Oliveros , J.C. Sanabria , Y. Assran , A. Sharma , M. Abbrescia , A. Colaleo , G. Pugliese , F. Loddo , C. Calabria , M. Maggi , L. Benussi , S. Bianco , S. Colafranceschi , D. Piccolo , C. Carrillo , et al.

physics/1301.6978

Comments: to be published in JINST

Quantum Physics (partial listing)

Fundamental Properties of Eigenstate Wave Functions of PT-Symmetric Anharmonic Oscillators

J. H. Noble and U. D. Jentschura
quant-ph/1301.5758
Comments: 9 pages; RevTeX

Reply to "Comment on 'Detecting Non-Abelian Geometric Phases with Three-Level \Lambda\ Atoms' "

Y. X. Du, Z. Y. Xue, X. D. Zhang, H. Yan
quant-ph/1301.5950
Comments: 3 pages,1 figure

Paradoxes of the Aharonov-Bohm and the Aharonov-Casher effects

Lev Vaidman
quant-ph/1301.6153
Comments: To be published in Yakir Aharonov 80th birthday Festschrift

Knot Logic and Topological Quantum Computing with Majorana Fermions

Louis H. Kauffman
quant-ph/1301.6214
Comments: LaTeX document, 124 pages, 91 figures. To appear in "Logic and Algebraic Structures in Quantum Computing and Information", Lecture Notes in Logic, J. Chubb, J. Chubb, Ali Eskandarian, and V. Harizanov, editors, Cambridge University Press

Lagrangian-Only Quantum Theory

K.B. Wharton
quant-ph/1301.7012
Comments: 17 pages, 2 figures. Comments welcome

Mathematical Physics (partial listing)

Killing Vector Fields and Superharmonic Field Theories

Josua Groeger
math-ph/1301.5474
Comments: 21 pages

Chern-Simons-Matter Theory

Mir Faizal
math-ph/1301.5664
Comments: 16 pages, 0 figures, accepted for publication in Int. J. Mod. Phys. A

Comment on star-star relations in statistical mechanics and elliptic gamma-function identities

Vladimir V. Bazhanov, Andrew P. Kels and Sergey M. Sergeev
math-ph/1301.5775
Comments: 8 pages, 3 figures

Superpotentials, quantum parameter space and phase transitions in N=1 supersymmetric gauge theories

Gabriel \'Alvarez, Luis Mart\'inez Alonso and Elena Medina
math-ph/1301.5982
Comments: arXiv admin note: substantial text overlap with arXiv:1204.5054

Construction of two-dimensional quantum field models through Longo-Witten endomorphisms

Yoh Tanimoto
math-ph/1301.6090

Comments: 28 pages, 1 tikz figure

A unified quantum theory II: gravity interacting with Yang-Mills and spinor fields

Claus Gerhardt
math-ph/1301.6101
Comments: 26 pages, v2: redefined the scalar product in $\mc P$

On k-jet field approximations of geodesic deviation equations

Ricardo Gallego Torrom\'e
math-ph/1301.6352

Three-manifold invariant from functional integration

E. Guadagnini and F. Thuillier
math-ph/1301.6407

Wavelets in Field Theory

Fatih Bulut and Wayne N. Polyzou
math-ph/1301.6570
Comments: 40 pages, 2 figures

Some consequences of GUP induced ultraviolet wavevector cutoff in one-dimensional Quantum Mechanics

K. Sailer, Z. Peli, S. Nagy
math-ph/1301.6913
Comments: 20 pages, 2 figures

Remarks on local gauge invariance in perturbative algebraic quantum field theory

Katarzyna Rejzner
math-ph/1301.7037
Comments: 30 pages

Mathematics (partial listing)

Landau-Ginzburg/Calabi-Yau correspondence for the complete intersections X_{3,3} and X_{2,2,2,2}

Emily Clader
math/1301.5530
Comments: 44 pages. v2: Construction of virtual cycle via cosection is based on work of Kiem-Li-Chang (arXiv:1007.3085 and arXiv:1101.0914) and is a generalization of upcoming work of Chang-Li-Li

Superpotentials, quantum parameter space and phase transitions in N=1 supersymmetric gauge theories

Gabriel \'Alvarez, Luis Mart\'inez Alonso and Elena Medina
math/1301.5982
Comments: arXiv admin note: substantial text overlap with arXiv:1204.5054

Curved differential graded algebras and corings

Tomasz Brzezi\'nski
math/1301.5985
Comments: 25 pages

On higher order Leibniz identities in TCFT

Anton M. Zeitlin
math/1301.6382
Comments: 14 pages, 5 figures

Web worlds, web-colouring matrices, and web-mixing matrices

Mark Dukes, Einan Gardi, Einar Steingrimsson, Chris D. White

math/1301.6576

Morita equivalences from Higgsing toric superpotential algebras

Charlie Beil

math/1301.7059

Comments: 25 pages. Comments welcome!

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