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PROJECT PUBLICATIONS

Grant Agreement number: 228644

Project acronym: Crete-HEP-Cosmo

Project title: Crete Center for Particle Physics and Cosmology

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Period covered: from 1/4/2009 to 30/9/2010

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¹ Usually the contact person of the coordinator as specified in Art. 8.1. of the grant agreement

² The home page of the website should contain the generic European flag and the FP7 logo which are available in electronic format at the Europa website (logo of the European flag: http://europa.eu/abc/symbols/emblem/index_en.htm ; logo of the 7th FP: http://ec.europa.eu/research/fp7/index_en.cfm?pg=logos). The area of activity of the project should also be mentioned.

1) An AdS/QCD model from tachyon condensation: II.

[Ioannis Iatrakis](#), [Elias Kiritsis](#), [Angel Paredes](#), . CCTP-2010-13, Oct 2010. 55pp. [Temporary entry](#)
e-Print: [arXiv:1010.1364](#) [hep-ph]

2) Electroweak phase transition in technicolor.

[Matti Jarvinen](#), . CP3-ORIGINS-2010-42, CCTP-2010-14, Oct 2010. 6pp. [Temporary entry](#)
e-Print: [arXiv:1010.0272](#) [hep-ph]

3) Extreme Technicolor & The Walking Critical Temperature.

[Matti Jarvinen](#), [Francesco Sannino](#), . CP3-ORIGINS-2010-39, CCTP-2010-12, Sep 2010. 18pp.
[Temporary entry](#)
e-Print: [arXiv:1009.5380](#) [hep-ph]

4) Properties of Schroedinger Black Holes from AdS Space.

[Bom Soo Kim](#), [Daisuke Yamada](#), . CCTP-2010-11, Aug 2010. 27pp. [Temporary entry](#)
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5) Refractive index in holographic superconductors.

[Xin Gao](#), ([Beijing, Inst. Theor. Phys.](#)) , [Hongbao Zhang](#), ([Crete U.](#)) . Aug 2010. 16pp.
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6) Stochastic Samples versus Vacuum Expectation Values in Cosmology.

[N.C. Tsamis](#), ([Crete U.](#)) , [Aggelos Tzetzias](#), [R.P. Woodard](#), ([Florida U.](#)) . CCTP-10-09, UFIFT-QG-10-07, Jun 2010. 15pp.
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7) Improved Holographic QCD.

[Umut Gursoy](#), ([Utrecht U.](#)) , [Elias Kiritsis](#), ([Crete U.](#) & [APC, Paris](#)) , [Liuba Mazzanti](#), ([Santiago de Compostela U.](#) & [Santiago de Compostela U., IGFAE](#)) , [Georgios Michalogiorgakis](#), ([Purdue U.](#)) , [Francesco Nitti](#), ([APC, Paris](#)) . CCTP-2010-7, Jun 2010. 64pp.
To appear in the proceedings of 5th Aegean Summer School: FROM GRAVITY TO THERMAL GAUGE THEORIES: THE AdS/CFT CORRESPONDENCE, Adamas, Milos Island, Greece, 21-26 Sep 2009.
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8) Possible Enhancement of High Frequency Gravitational Waves.

[Maria G. Romania](#), [N.C. Tsamis](#), [R.P. Woodard](#), . Jun 2010. 21pp. [Temporary entry](#)
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9) Primordial Density Perturbations and Reheating from Gravity.

[N.C. Tsamis](#), ([Crete U.](#)) , [R.P. Woodard](#), ([Florida U.](#)) . CCTP-2010-8, UFIFT-QG-10-04, Jun 2010.
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10) Langevin diffusion of heavy quarks in non-conformal holographic backgrounds.

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- 11) **Effective Holographic Theories for low-temperature condensed matter systems.**
[C. Charmousis](#), ([Orsay, LPT & Tours U., CNRS](#)) , [B. Gouteraux](#), ([Orsay, LPT](#)) , [B.S. Kim](#), ([FORTH, Heraklion & Crete U.](#)) , [E. Kiritsis](#), [R. Meyer](#), ([Crete U.](#)) . CCTP-2010-5, LPT-10-34, May 2010. 101pp.
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- 12) **Note on the non-adjacent BCFW deformations.**
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- 13) **On the nonlinear response of a particle interacting with fermions in a 1D lattice.**
[X. Zotos](#), ([Crete U.](#) & [Res. Ctr. of Crete, Heraklion](#)) . Apr 2010. 4pp.
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- 14) **Torsional degrees of freedom in AdS4/CFT3.**
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- 15) **Quantum Hall Effect in a Holographic Model.**
[Oren Bergman](#), [Niko Jokela](#), [Gilad Lifschytz](#), [Matthew Lippert](#), . Mar 2010. 29pp. [Temporary entry](#)
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- 16) **Classical ultrarelativistic bremsstrahlung in extra dimensions.**
[Dmitry V. Galtsov](#), ([Moscow State U.](#)) , [Georgios Kofinas](#), ([Crete U.](#)) , [Pavel Spirin](#), ([Dubna, JINR](#)) , [Theodore N. Tomaras](#), ([Crete U.](#)) . Mar 2010. 24pp.
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- 18) **On thermal force from holographic action.**
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- 19) **De Sitter Breaking through Infrared Divergences.**
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- 20) **Gauge Fields, Membranes and Subdeterminant Vector Models.**
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- 21) **Post-Inflationary Evolution via Gravitation.**
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25) On Horava-Lifshitz 'Black Holes'.

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36) [arXiv:1007.3508](https://arxiv.org/abs/1007.3508) [[pdf](#), [other](#)]

Title: Precessing vortices and antivortices in ferromagnetic elements

Authors: [Andreas Lyberatos](#), [Stavros Komineas](#), [Nikos Papanicolaou](#)

Comments: 8 pages, 11 figures

Subjects: Materials Science (cond-mat.mtrl-sci)

37) [arXiv:0911.2377](https://arxiv.org/abs/0911.2377) [[pdf](#), [ps](#), [other](#)]

Title: Groebli solution for three magnetic vortices

Authors: [S. Komineas](#), [N. Papanicolaou](#)

Comments: 19 pages, 6 figures

Subjects: Mesoscale and Nanoscale Physics (cond-mat.mes-hall)

38) [arXiv:1004.4353](https://arxiv.org/abs/1004.4353) [[pdf](#), [other](#)]

Title: On the nonlinear response of a particle interacting with fermions in a 1D lattice

Authors: [X. Zotos](#)

Comments: 4 pages, 4 figures

Subjects: Strongly Correlated Electrons (cond-mat.str-el)

39) [arXiv:1002.0717](https://arxiv.org/abs/1002.0717) [[pdf](#), [other](#)]

Title: Thermal transport in a spin-1/2 Heisenberg chain coupled to a (non) magnetic impurity

Authors: [A. Metavitsiadis](#), [X. Zotos](#), [O. S. Barišić](#), [P. Prelovšek](#)

Comments: 7 pages, 12 figures

Journal-ref: Physical Review B 81, 205101 (2010)

Subjects: Strongly Correlated Electrons (cond-mat.str-el)