

# **Pavlos Pasipoularides**

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## **POSITIONS**

Postdoc researcher, Physics Department of NTUA  
(National Technical University of Athens),  
2004-2006.

## **EDUCATION**

**PhD:** Theoretical Physics, Physics Department of NTUA, June 2003.

**M.S.:** Physics and Technological Applications, Physics Department of NTUA, Grade 9.36/10, October 2000.

**M.A.:** Electrical Engineer and H/Y Engineer, National Technical University of Athens, Grade 8.35/10, July 1996.

## **DISSERTATION**

**Title:** "Fermion-induced effective action in the presence of a magnetic flux tube." The dissertation aims at the numerical computation and study of the Heisenberg-Euler Lagrangian in the presence of inhomogeneous magnetic fields of the form of a flux tube. Dissertation Advisor: Professor George Tiktopoulos.

## **LESSONS**

For M.S., I have passed the following twelve lessons:

Classical Mechanics 10, Electromagnetism (I) 10, Electromagnetism (II) 8, Mathematics (I) 10, Mathematics (II) 10, Statistical Mechanics 9, Quantum Mechanics (I) 10, Quantum Mechanics (II) 9, General Relativity 8, Elementary Particles 10, Quantum Field Theory (I) 9, Quantum Field Theory (II) 8.

## **DISTINCTIONS**

- 1) Scholarship from Eugenides Institute (1996-1997)
- 2) Scholarship from NTUA (1997-2000)

## **TEACHING EXPERIENCE**

- 1) Instructor of Electronics and H/Y, School of Technical non-commissioned officers of air force, Kabouri-Athens, 2004-2011.
- 2) Permanent lecturer (407 position) in the Physics department of NTUA, 2006-2011.

## **LANGUAGES**

First Certificate in English

## **PUBLICATIONS**

- 1) Pavlos Pasipoularides, Fermion-induced effective action in the presence of a static inhomogeneous magnetic field, Physical Review D, Volume 64, 105011 (2001), hep-th/0012031.

- 2) Pavlos Pasipoulaides, Strong magnetic field asymptotic behavior for the fermion-induced effective energy in the presence of a magnetic flux tube, Phys. Rev. D, volume 67, 107301 (2003), hep-th/0301192.
- 3) K. Farakos and P. Pasipoulaides, Effective potential analysis for 5D SU(2) gauge theories at finite temperature and radius, Nucl. Phys. B705 (2005) 92-110, hep-ph/0406266.
- 4) K. Farakos and P. Pasipoulaides, Extra-Dimensions effects on the fermion-induced quantum energy in the presence of a constant magnetic field, Phys. Rev. D71 (2005) 045011, hep-th/0410020.
- 5) P. Pasipoulaides, Phase shift approach in the case of a magnetic flux tube, hep-th/0502238 (αδημοσίευτο).
- 6) K. Farakos and P. Pasipoulaides, Gravity-induced instability and gauge field localization, Phys.Lett. B621 (2005) 224-232 , hep-th/0504014.
- 7) K. Farakos and P. Pasipoulaides, Second Randall-Sundrum brane world scenario with a nonminimally coupled bulk scalar field, Phys.Rev. D73 (2006) 084012, hep-th/0602200.
- 8) K. Farakos and P. Pasipoulaides, Gauss-Bonnet gravity, brane world models, and non-minimal coupling, Phys. Rev. D75 (2007) 024018, hep-th/0610010.
- 9) K. Farakos, G. Koutsoumbas, P. Pasipoulaides, Graviton localization and Newton's law for brane models with a non-

minimally coupled bulk scalar field,  
Phys.Rev.D76:064025 (2007), 0705.2364 [hep-th].

- 10) J. Alexandre, K. Farakos, N.E. Mavromatos, P. Pasipoulaides, Neutrino oscillations in a stochastic model for space-time foam, Phys.Rev.D77:105001, 2008. 0712.1779 [hep-ph].
- 11) K. Farakos, N.E. Mavromatos, P. Pasipoulaides, Bulk photons in Asymmetrically Warped Spacetimes and Non-trivial Vacuum Refractive Index, JHEP 0901:057, 2009, 0807.0870 [hep-th].
- 12) J. Alexandre, K. Farakos, N.E. Mavromatos and P. Pasipoulaides, Neutrino oscillations in a Robertson-Walker Universe with space time foam, Phys.Rev.D79:107701, 2009, 0902.3386 [hep-ph].
- 13) K. Farakos, A.P. Kouretsis, P. Pasipoulaides, Anti de Sitter 5D black hole solutions with a self-interacting bulk scalar field: A Potential reconstruction approach, Phys.Rev.D80:064020, 2009. ,0905.1345 [hep-th].
- 14) Dynamical generation of Lorentz symmetry for a Lifshitz-type Yukawa model, J. Alexandre, K. Farakos, P. Pasipoulaides, A. Tsapalis. 2009, Phys.Rev.D81:045002, 2010. arXiv:0909.3719 [hep-th].
- 15) Black Hole Solutions in 5D Horava-Lifshitz Gravity.  
George Koutsoumbas, Eletherios Papantonopoulos, Pavlos Pasipoulaides, Minas Tsoukalas, Published in Phys.Rev.D81:124014, 2010. e-Print: arXiv:1004.2289 [hep-th].

- 16) Black hole solutions in Horava-Lifshitz Gravity with cubic terms. George Koutsoumbas, Pavlos Pasipoulaides, Published in Phys.Rev.D82:044046, 2010. e-Print: arxiv:1006.3199 [hep-th].
- 17) Non-Linear Sigma Model and asymptotic freedom at the Lifshitz point. K. Anagnostopoulos, K. Farakos, P. Pasipoulaides, A. Tsapalis, e-Print: arXiv:1007.0355 [hep-th]. (Έχει σταλεί για δημοσίευση στο περιοδικό Phys.Rev.D)
- 18) Spherically symmetric solutions in Covariant Horava-Lifshitz Gravity. Jean Alexandre, Pavlos Pasipoulaides, arXiv: 1010.3634 [hep-th]. Phys.Rev.D83:084030, 2011.
- 19) K. Farakos and P. Pasipoulaides, Brane world scenario in the presence of a non-minimally coupled bulk scalar field, Prepared for 12th Conference on Recent Developments in Gravity (NEB XII), Nafplio, Greece, 29 Jun - 2 Jul 2006, Published in: J.Phys.Conf.Ser.68:012041,2007, hep-th/0609089.
- 20) K. Farakos, N. E. Mavromatos and P. Pasipoulaides, Asymmetrically Warped Brane Models, Bulk Photons and Lorentz Invariance, Prepared for 13th Conference on Recent Developments in Gravity (NEB XIII), Thessaloniki, Greece, 4-6 Jun 2008, 0902.1243 [hep-th]. J.Phys.Conf.Ser.189:012029, 2009.
- 21) Black holes in 5D Horava Lifshitz theory of gravity. George Koutsoumbas, Eleftherios Papantonopoulos, Pavlos Pasipoulaides, Minas Tsoukalas, (Natl. Tech. U., Athens) . 2010. 7pp. Prepared for 16th International Symposium On Particles, Strings And Cosmology (PASCOS 2010), Valencia, Spain, 19-23 Jul 2010. Published in J.Phys.Conf.Ser.259:012050,2010.

## PRESENTATIONS

- 1) BUSSTEP Αγγλία 2000: Ομιλία με τίτλο «Ενεργός δράση παρουσία εξωτερικών μαγνητικών πεδίων σε συστήματα δύο διαστάσεων».

- 2) Scalar field instability and gauge field localization, HEP2005 workshop on Recent Advances in Particle Physics and Cosmology, Thessaloniki, 21-24 April 2005.
- 3) Stable Solutions for 5D Gravity with a non Minimally Coupled Scalar Field, THIRD AEGEAN SUMMER SCHOOL: The Invisible Universe Dark Matter and Dark Energy, Chios, 26-1 September 2005.
- 4) Brane world models with a scalar field non-minimally coupled with gravity, HEP2006 Recent Developments in High Energy Physics and Cosmology, Ioannina, 13-16 April 2006.
- 5) Brane world scenario in the presence of a non-minimally coupled scalar field, Recent Developments in Gravity (NEB XII), Nafplio, 29 June- 2 July 2006.
- 6) Linearized Gravity for brane models with a Non-Minimally Coupled Bulk Scalar field, Fourth Aegean Summer School on Black Holes, Mytilene 17-23 September 2007.
- 7) Asymmetrically warped Brane Models, Recent Developments in Gravity (NEB XIII), Thessaloniki, 4-6 June 2008.