CURRICULUM VITAE

Bahtiyar Özgür Sarıoğlu

Personal Data:

Name: Bahtiyar Özgür Sarıoğlu
Birth: August 3, 1969 in Akhisar/Manisa, Turkey
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Education:

Institution and Location	Degree	Year Conferred	Field of Study
Bilkent University, Ankara, Turkey	B.Sc.	June 1991	Electrical & Electronics Eng.
Bilkent University, Ankara, Turkey	M.Sc.	June 1993	Mathematics
Brandeis University, Waltham, MA, USA	Ph.D.	February 2000*	Physics

*: Ph.D. thesis defended successfully on September 7, 1999.

Theses:

◇ *An Integrable Family of Monge-Ampère Equations and Their Multi-Hamiltonian Structure*, Bilkent University, June 1993, (thesis advisor: Prof. Dr. Yavuz Nutku).

◇ *Duality/Propagation Properties of Gauge Theories and Attempts at Supersymmetry Breaking in* $\mathcal{N} = 4$ *SYM*, Brandeis University, February 2000, (thesis advisor: Prof. Stanley Deser).

Academic Honors:

◇ Recipient of the TÜBA University Textbooks Award Program - Best Translation Award in Natural Sciences for 2009.

◇ Recipient of the TÜBİTAK-TWAS Incentive Award for 2007.

◇ Associate Professorship entitled by YÖK in April 2004.

◇ Recipient of the David L. Falkoff Graduate School Prize Award for 1995-96.

◇ Teaching assistantship (covering full tuition and including a monthly stipend) by Brandeis University, from September 1994 to August 1999.

◇ Teaching assistantship (covering full tuition, accommodations and a monthly salary) by Bilkent University, from September 1991 to July 1994.

◇ Fellowship (covering full tuition, food and accommodations, and a monthly stipend) by Bilkent University, from September 1987 to June 1991.

Employment and Experience:

◇ Professor in the Physics Dept. of METU, Ankara, since October 2010.

◇ Associate Professor in the Physics Dept. of METU, Ankara, from October 2006 to October 2010.

◇ Assistant Professor in the Physics Dept. of METU, Ankara, from June 2001 to October 2006.

◇ Instructor in the Physics Dept. of METU, Ankara, from January 2000 to June 2001.

◇ Full time graduate student in the Physics Dept. of Brandeis University, from September 1994 to August 1999.

◇ Full time graduate student in the Mathematics Dept. of Bilkent University, from September 1991 to July 1994.

◇ Visiting researcher at CBPF in Rio de Janeiro, Brazil, from October 1993 to November 1993.

Schools and Conferences:

◇ *Strings, Branes and Supergravity*, Koç University, İstanbul, August 1-5, 2011.

◇ *Spanish Relativity Meeting ERE 2008, Physics and Mathematics of Gravitation*, Salamanca, Spain, September 15-19, 2008.

◇ *İstanbul 2007: Strings, Branes and Cosmology*, Koç University, İstanbul, July 9-13, 2007.

◇ Organizer for *Workshop on Quantization, Dualities and Integrable Systems VI*, Middle East Technical University, Ankara, April 20-22, 2007.

◇ *11th Marcel Grossmann Meeting*, Berlin, Germany, July 23-29, 2006.

◇ *XXVIII Spanish Relativity Meeting ERE 2005, A Century of Relativity Physics*, Oviedo, Spain, September 6-10, 2005.

◇ *Symmetry in Nonlinear Mathematical Physics VI*, Kiev, Ukraine, June 20-26, 2005.

◇ *Mini-Workshop on Quantization, Dualities and Integrable Systems IV*, Abant İzzet Baysal University, Bolu, February 1-4, 2005.

◇ Organizer for *Mini-Workshop on Quantization, Dualities and Integrable Systems III*, Middle East Technical University, Ankara, February 13-14, 2004.

◇ *Mini-Workshop on Quantization, Dualities and Integrable Systems II*, Koç University, İstanbul, February 7-8, 2003.

◇ *Gürsey Memorial Conference II, M-Theory and Dualities*, İstanbul, June 19-23, 2000.

◇ *TASI '97, Supersymmetry, Supergravity and Supercolliders*, Boulder, CO, June 1997.

◇ *NATO ASI on Real and Complex Dynamical Systems*, Denmark, June 1993.

◇ *NATO ARW on Applications of Analytical and Geometrical Methods to Nonlinear Differential Equations*, England, July 1992.

◇ *Differential Geometry and Topology on 4-Manifolds*, Gökova, Turkey, June 1992.

Research Accomplishments:

[1] Y. Nutku, Ö. Sarıoğlu, *An integrable family of Monge-Ampère equations and their multi-Hamiltonian structure*, Phys. Lett. **A 173** (1993) 270.

[2] S. Deser, Ö. Sarıoğlu, *Hamiltonian electric/magnetic duality and Lorentz invariance*, Phys. Lett. **B 423** (1998) 369; [arXiv:hep-th/9712067].

[3] S. Deser, J. McCarthy, Ö. Sarıoğlu, *"Good propagation" and duality invariance constraints on scalar, gauge vector and gravity actions*, Class. Quantum Grav. **16** (1999) 841; [arXiv:hep-th/9809153].

[4] J. McCarthy, Ö. Sarıoğlu, *Shock free wave propagation in gauge theories*, Inter. Jour. Theor.

Phys., Vol. **39** No. 1 (2000) 159; [arXiv:math-ph/9902004].

[5] T. Dereli, Ö. Sarıoğlu, *"Self dual" solutions of topologically massive gravity coupled with the Maxwell-Chern-Simons theory*, Phys. Lett. **B 492** (2000) 339; [arXiv:gr-qc/0009090].

[6] T. Dereli, Ö. Sarıoğlu, *Supersymmetric solutions to topologically massive gravity and black holes in three dimensions*, Phys. Rev. **D 64** (2001) 027501; [arXiv:gr-qc/0009082].

[7] M. Gürses, Ö. Sarıoğlu, *Accelerated charge Kerr-Schild metrics in D-Dimensions*, Class. Quantum Grav. 19 (2002) 4249; *Corrigendum*, Class. Quantum Grav. **20** (2003) 1413; [arXiv:gr-qc/0203097].

[8] Ö. Sarıoğlu, *Liénard-Wiechert potentials of a non-Abelian Yang Mills charge*, Phys. Rev. **D 66** (2002) 085005; [arXiv:hep-th/0207227].

[9] M. Gürses, Ö. Sarıoğlu, *Accelerated Born-Infeld metrics in Kerr-Schild geometry*, Class. Quantum Grav. **20** (2003) 351; [arXiv:gr-qc/0207083].

[10] M. Gürses, Ö. Sarıoğlu, *Liénard-Wiechert potentials in even dimensions*, J. Math. Phys. **44** (2003) 4672; [arXiv:hep-th/0303078].

[11] M. Gürses, Ö. Sarıoğlu, *Some further properties of the accelerated Kerr-Schild metrics*, Gen. Rel. Grav. **36** (2004) 403; [arXiv:gr-qc/0308020].

[12] N.S. Değer, Ö. Sarıoğlu, *Supersymmetric strings and waves in $D = 3$, $N = 2$ matter coupled gauged supergravities*, J. High Energy Phys. **12** (2004) 039; [arXiv:hep-th/0409169].

[13] M. Gürses, A. Karasu, Ö. Sarıoğlu, *Gödel-type metrics in various dimensions*, Class. Quantum Grav. **22** (2005) 1527; [arXiv:hep-th/0312290].

[14] S. Ölmez, Ö. Sarıoğlu, B. Tekin, *Mass and angular momentum of asymptotically AdS or flat solutions in the topologically massive gravity*, Class. Quantum Grav. **22** (2005) 4355; [arXiv:gr-qc/0507003].

[15] M. Gürses, Ö. Sarıoğlu, *Gödel-type metrics in various dimensions: II. Inclusion of a dilaton field*, Class. Quantum Grav. **22** (2005) 4699; [arXiv:hep-th/0505268].

[16] M. Gürses, Ö. Sarıoğlu, *Accelerated Levi-Civita-Bertotti-Robinson metric in D-Dimensions*, Gen. Rel. Grav. **37** (2005) 2015; [arXiv:gr-qc/0502035].

[17] H. Cebeci, Ö. Sarıoğlu, B. Tekin, *Negative mass solitons in gravity*, Phys. Rev. **D 73** (2006) 064020; [arXiv:hep-th/0602117].

[18] R.J. Gleiser, M. Gürses, A. Karasu, Ö. Sarıoğlu, *Closed timelike curves and geodesics of Gödel-type metrics*, Class. Quantum Grav. **23** (2006) 2653; [arXiv:gr-qc/0512037].

[19] N.S. Değer, Ö. Sarıoğlu, *New supersymmetric solutions in $N = 2$ matter coupled AdS_3 supergravities*, J. High Energy Phys. **08** (2006) 078; [arXiv:hep-th/0605098].

[20] Ö. Sarıoğlu, B. Tekin, *Topologically massive gravity as a Pais-Uhlenbeck oscillator*, Class. Quantum Grav. **23** (2006) 7541; [arXiv:gr-qc/0608085].

[21] H. Cebeci, Ö. Sarıoğlu, B. Tekin, *Gravitational charges of transverse asymptotically AdS spacetimes*, Phys. Rev. **D 74** (2006) 124021; [arXiv:hep-th/0611011].

[22] S. Deser, Ö. Sarıoğlu, B. Tekin, *Spherically symmetric solutions of Einstein + non-polynomial gravities*, Gen. Rel. Grav. **40** (2008) 1; [arXiv:0705.1669 [gr-qc]].

[23] Ö. Sarıoğlu, B. Tekin, *Another proof of the positive energy theorem in gravity*, [arXiv:0709.0407 [gr-qc]].

[24] A.U.Ö. Kişisel, Ö. Sarıoğlu, B. Tekin, *Cotton flow*, Class. Quantum Grav. **25** (2008) 165019, [arXiv:0803.1603 [hep-th]].

[25] H. Cebeci, Ö. Sarıoğlu, B. Tekin, *Finite mass gravitating Yang monopoles*, Phys. Rev. **D**

78 (2008) 125016, [arXiv:0809.0806 [hep-th]].

[26] Ö. Sarıoğlu, B. Tekin, *Comment on 'A second anti-de Sitter universe'*, Class. Quantum Grav. **26** (2009) 048001, [arXiv:0811.3683 [gr-qc]].

[27] Ö. Sarıoğlu, B. Tekin, *Note on cosmological Levi-Civita spacetimes in higher dimensions*, Phys. Rev. **D 79** (2009) 087502, [arXiv:0901.1242 [gr-qc]].

[28] Ö. Sarıoğlu, B. Tekin, *Self-dual solutions of Yang-Mills theory on Euclidean AdS space*, Phys. Rev. **D 79** (2009) 104024, [arXiv:0903.3803 [hep-th]].

[29] N.S. Değer, H. Samtleben, Ö. Sarıoğlu, *On the supersymmetric solutions of $D = 3$ half-maximal supergravities*, Nuclear Physics B **840** (2010) 29, [arXiv:1003.3119 [hep-th]].

[30] D.O. Devecioğlu, Ö. Sarıoğlu, *Conserved Killing charges of quadratic curvature gravity theories in arbitrary backgrounds*, Phys. Rev. **D 83** (2011) 021503(R), [arXiv:1010.1711 [hep-th]].

[31] D.O. Devecioğlu, Ö. Sarıoğlu, *Thermodynamics of Lifshitz black holes*, Phys. Rev. **D 83** (2011) 124041, [arXiv:1103.1993 [hep-th]].

[32] Ö. Sarıoğlu, *Stationary Lifshitz black holes of R^2-corrected gravity theory*, Phys. Rev. **D 84** (2011) 127501, [arXiv:1109.4721 [hep-th]].

Books Translated (from English):

The Original Work:

James T. Cushing, *Philosophical Concepts in Physics, The Historical Relation between Philosophy and Scientific Theories*, (Cambridge: Cambridge University Press, 2000), ISBN: 0 521 57823 X (pbk.)

1) *Fizikte Felsefi Kavramlar, Felsefe ve Bilimsel Kuramlar Arasındaki Tarihsel İlişki*, Vol.1, (İstanbul: Sabancı University Press, 2003), ISBN: 975-8362-29-1.

2) *Fizikte Felsefi Kavramlar, Felsefe ve Bilimsel Kuramlar Arasındaki Tarihsel İlişki*, Vol.2, (İstanbul: Sabancı University Press, 2006), ISBN: 975-8362-57-7.

Ph. D. Theses Supervised:

1) N.T. Yılmaz, *Dualisation of supergravity theories*, 2004. (supervised with Prof.Dr. Tekin Dereli)

M. Sc. Theses Supervised:

1) H. Sevinçli, *Tunneling time models and 'superluminality'*, 2002.

2) M. Kavuk, *Gödel spacetime*, 2005.

3) D.O. Devecioğlu, *Conserved charges of quadratic curvature gravity theories in arbitrary backgrounds*, 2010.

Courses Given in METU:

1) Phys 105, General Physics I

2) Phys 106, General Physics II

3) Phys 111, Physics I (Mechanics)

4) Phys 112, Physics II (Electricity and Magnetism)

5) Phys 209, Mathematical Methods in Physics I (for special physics program)

6) Phys 210, Mathematical Methods in Physics II (for special physics program)

7) Phys 311, Classical Mechanics (for special physics program)

8) Phys 400, Special Problems in Physics

9) Phys 415, Projects in Physics

10) Phys 416, Advanced Selected Problems in Physics
11) Phys 434, Mathematical Methods in Physics III
12) Phys 481, Theory of Relativity I
13) Phys 482, Theory of Relativity II
14) Phys 491, Geometry and Topology in Physics I
15) Phys 493, Special Functions for Physicists
16) Phys 503, Methods of Mathematical Physics I
17) Phys 504, Methods of Mathematical Physics II
18) Math 260, Basic Linear Algebra