

CURRICULUM VITAE

Gor Sarkissian, Ph.D.

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Personal data

Family name: Sarkissian (Sargsyan)

First name: Gor

Date of birth: July 23, 1972

Place of birth: Yerevan, Armenia

Citizenship: Armenian

Gender: male

Family status: married

Research interests

String theory, Conformal field theory, Topological field theory.

Present Position

January 2011 - Researcher at the Laboratory of Theoretical Physics, Yerevan State University, Yerevan, Armenia.

Former Positions

Oct. 2009 - June 2010 Postdoctoral research fellow at the Department of Mathematical Sciences of the University of Aarhus, Aarhus, Denmark.

March 2008 - Oct. 2009 Postdoctoral research fellow at the Department of Mathematics of the University of Hamburg, Hamburg, Germany.

Oct. 2005 - Oct. 2007 Postdoctoral research fellow at the Department of Physics of the University of Rome “Tor Vergata” and INFN section Rome “Tor Vergata”, Rome, Italy.

Oct. 2001 - Dec. 2004 Postdoctoral research fellow at the High Energy Section of the Abdus Salam ICTP, Trieste, Italy.

Education

May 1996 - Oct. 2001 **Ph.D. in physics** (June 2002), The Racah Institute of Physics, The Hebrew University, Jerusalem, Israel.
Scientific advisors: Prof. S. Elitzur and E. Rabinovici.
Thesis: “World-sheet and target space properties of String theory in the presence of D-branes”.

Sept. 1988 - May 1993 Diploma in Physics (equivalent to M.Sc.) (July 1993), Yerevan State University, Yerevan, Armenia.
Scientific advisors: Prof. G. Grigorian and H. Khudaverdian.
Thesis: “Quantization of the theories with singular Lagrangians”.

Teaching experience

Sept. 2011 - Sept. 2014 Lecturer of the Ph.D. course “Basis of Conformal Field Theories with boundaries and defects” at the Department of Physics, Yerevan State University, Yerevan, Armenia. Available at 2DCFT-Lectures

Jan. 2010 - May 2010 Lecturer of the Ph.D. course “Higgs Bundles and the Geometric Langlands Program” at the Department of Mathematical Sciences of the University of Aarhus, Aarhus, Denmark.

Oct. 1998 - Oct. 2001 Teaching assistance at the Department of Physics, Hebrew University, Jerusalem, Israel.
Courses: Mechanics, Waves and Oscillations, Quantum Mechanics, Quantum Field Theory, Elementary Particle Physics.

Oct. 1997 - Oct. 1998 Guidance in Student Laboratory at the Department of Physics, Hebrew University, Jerusalem, Israel.

Long-term research visits

2013: Visitor at ICTP, Trieste, Italy (3 months)

2012: Visitor at Racah Institute of Physics, The Hebrew University, Jerusalem, Israel (6 months)

2011: Visitor at Racah Institute of Physics, The Hebrew University, Jerusalem, Israel (1 month)

2011: Visitor at Weizmann Institute of Science, Rehovot, Israel (1 month)

2011: Visitor at ICTP, Trieste, Italy (3 months)

Languages:

Russian (native language), Armenian (native language), English (fluent), Hebrew (fluent), Italian (basic)

Participation in conferences

2015: Workshop and School "Selected Topics in Theoretical High Energy Physics", 21-25 September, Tbilisi, Georgia.

2015: Conference on Recent Progress in Quantum Field Theory and String Theory, (smr 2733), 14 - 19 September 2015, Yerevan, Armenia.

2015: IX International Symposium on Quantum Theory and Symmetries (QTS-9), Yerevan, Armenia, July 13-18, 2015.

2014: Second Autumn School on High Energy Physics and Quantum Field Theory, Yerevan State University, Yerevan, Armenia.

2014: Frontiers in field and string theory, Yerevan Physics Institute, Yerevan, Armenia.

2012: The International Workshop "Supersymmetry in Integrable Systems", Yerevan State University, Yerevan, Armenia.

2010: The International Workshop "Supersymmetry in Integrable Systems", Yerevan State University, Yerevan, Armenia.

2010: GEOMAPS Retreat, Spring 2010, Sandbjerg Estate, Denmark.

2009: CTQM Nielsen Retreat, 2009, Sandbjerg Estate, Denmark.

2008: "Recent developments in String/M-theory and field theory", Akademie Berlin-Schmoeckwitz, Berlin, Germany.

2007: “String Phenomenology 2007”, INFN Frascati National Laboratories, Frascati, Italy.

2002-2006: ICTP Spring Schools on Superstring Theory and Related Topics, ICTP, Trieste, Italy.

2000: String Theory at the Turn of the Millennium, Hebrew University, Jerusalem, Israel.

1999: TMR Summer School On Progress in String Theory and M-Theory, Cargese, Corsica, France.

1997: International Europhysics Conference on High-Energy Physics (HEP 97), Hebrew University, Jerusalem, Israel.

1996: Jerusalem Winter School on Strings and Duality, Hebrew University, Jerusalem, Israel.

Talks

2015: *Aspects of the Liouville field theory with topological defects*, Tbilisi State University, Tbilisi, Georgia.

2015: *Aspects of the Liouville field theory*, Yerevan State University, Yerevan, Armenia.

2014: *D-branes and defects in the Liouville and Toda field theories and AGT correspondence*, University of Rome Tor Vergata, Rome, Italy.

2014: *Defects, Non-abelian T-duality, and the Fourier-Mukai transform of the Ramond-Ramond fields*, Yerevan State University, Yerevan, Armenia.

2014: *Defects, Non-abelian T-duality, and the Fourier-Mukai transform of the Ramond-Ramond fields*, Arnold Sommerfeld Center, LMU Munich, Germany.

2013: *Defects, Non-abelian T-duality, and the Fourier-Mukai transform of the Ramond-Ramond fields*, ICTP, Trieste, Italy.

2013: *2D WZW model and 3D Chern-Simons gauge theory relation in the presence of boundaries and defects*, Racah Institute of Physics, The Hebrew University, Jerusalem, Israel.

- 2012: *Defects and Wilson lines holography*, Yerevan State University, Yerevan, Armenia.
- 2012: *D-branes and defects in the Liouville and Toda field theories*, Racah Institute of Physics, The Hebrew University, Jerusalem, Israel.
- 2012: *Defects, T-duality and Fourier-Mukai transform*, Tel Aviv University, Tel Aviv, Israel.
- 2011: *Defects in the Liouville field theory and AGT correspondence*, Weizmann Institute of Science, Rehovot, Israel.
- 2011: *2D WZW model and 3D Chern-Simons gauge theory relation in the presence of boundaries and defects*, ICTP, Trieste, Italy.
- 2010: *Defects in the Liouville field theory*, Yerevan State University, Yerevan, Armenia.
- 2010: *Symplectic structure of the moduli space of flat connections on a Riemann surface*, University of Aarhus, Sandbjerg Estate, Denmark.
- 2009: *On canonical quantization of the WZW model with defects and Chern-Simons theory*, University of Aarhus, Sandbjerg Estate, Denmark.
- 2008: *Sigma models with defects and Fourier-Mukai Transforms*, King's College, London, UK.
- 2006: *Permutation branes on WZW models*, University of Rome "Tor Vergata", Rome, Italy.
- 2003: *Non-maximally symmetric branes on WZW models*, École Polytechnique, Paris, France.
- 2002: *D-branes on a gauged WZW models*, ICTP, Trieste, Italy.

Research grants

- ANSEF -Armenian National Science and Education Fund in New York (USA)

Duality defects

hep-th/1303.3267, 2013 (Principal Investigator)

Defects in non-rational conformal field theory

PS2774 (2012) (Principal Investigator)

- State Committee of Science of Armenia
SCS 11-1c258 (2011), SCS 13-1C278 (2013)

List of Publications

1. H. Poghosyan and G. Sarkissian, “On classical and semiclassical properties of the Liouville theory with defects,” arXiv:1505.00366, accepted for publication in JHEP.
2. E. Gevorgyan and G. Sarkissian, “Defects, Non-abelian T-duality, and the Fourier-Mukai transform of the Ramond-Ramond fields,” JHEP **1403** (2014) 035 arXiv:1310.1264.
3. S. Elitzur, B. Karni, E. Rabinovici and G. Sarkissian, “Defects, Super-Poincaré line bundle and Fermionic T-duality,” JHEP **1304** (2013) 088 arXiv:1301.6639.
4. G. Sarkissian, “Some remarks on D-branes and defects in Liouville and Toda field theories,” Int. J. Mod. Phys. A **27** (2012) 1250181, arXiv:1108.0242.
5. G. Sarkissian, “On canonical quantization of the gauged WZW model with permutation branes,” Int. J. Mod. Phys. A, **26** (2011) 4647, arXiv:1102.4950.
6. G. Sarkissian, “Defects in G/H coset, G/G topological field theory and discrete Fourier-Mukai transform,” Nucl. Phys. B **846** [PM] (2011) 338-357, arXiv:1006.5317.
7. G. Sarkissian, “On canonical quantization of the WZW model with defects and Chern-Simons theory”, Int. J. Mod. Phys. A, **25** (2010) 1367, arXiv:0907.3395.
8. G. Sarkissian, “Defects and Permutation branes in the Liouville field theory,” Nucl. Phys. B **821** (2009) 607-625, arXiv:0903.4422.
9. G. Sarkissian and C. Schweigert, “Some remarks on defects and T-duality,” Nucl. Phys. B **819** (2009) 478-490, arXiv:0810.3159.
10. P. Anastasopoulos, M. Bianchi, G. Sarkissian and Y. S. Stanev, “Gauge couplings and thresholds in Type I Gepner models and otherwise,” JHEP **0703** (2007) 059, arXiv:hep-th/0612234.
11. G. Sarkissian, “On Cardy states in the (2,2,2,2) Gepner model,” Nucl. Phys. B **769** (2007) 287-312 arXiv:hep-th/0612058.

12. G. Sarkissian, “Generalised permutation branes on a product of cosets $G(k(1))/H \times G(k(2))/H$,” Nucl. Phys. B **747** (2006) 423-435 arXiv:hep-th/0601061.
13. G. Sarkissian and M. Zamaklar, “Symmetry breaking, permutation D-branes on group manifolds: Boundary states and geometric description,” Nucl. Phys. B **696** (2004) 66-106 arXiv:hep-th/0312215.
14. G. Sarkissian and M. Zamaklar, “Diagonal D-branes in product spaces and their Penrose limits,” JHEP **0403** (2004) 005, arXiv:hep-th/0308174.
15. G. Sarkissian, “On D-branes in the Nappi-Witten and GMM models,” JHEP **0301** (2003) 059, arXiv:hep-th/0211163.
16. G. Sarkissian, “On DBI action of the non-maximally symmetric D-branes on $SU(2)$,” JHEP **0301** (2003) 058, arXiv:hep-th/0211038.
17. G. Sarkissian, “Non-maximally symmetric D-branes on group manifold in the Lagrangian approach,” JHEP **0207** (2002) 033, arXiv:hep-th/0205097.
18. S. Elitzur and G. Sarkissian, “D-branes on a gauged WZW model,” Nucl. Phys. B **625** (2002) 166-178 arXiv:hep-th/0108142.
19. S. Elitzur, A. Giveon, D. Kutasov, E. Rabinovici and G. Sarkissian, “D-branes in the background of NS fivebranes,” JHEP **0008** (2000) 046, arXiv:hep-th/0005052.
20. S. Elitzur, E. Rabinovici and G. Sarkissian, “On least action D-branes,” Nucl. Phys. B **541** (1999) 246-264 hep-th/9807161.
21. G. V. Grigorian, R. P. Grigorian and G. A. Sarkissian, “Pseudoclassical and quantum theory of the $D = 2n$ -dimensional relativistic spinning particle with anomalous ‘magnetic’ moment in the external Yang-Mills field,” Phys. Atom. Nucl. **59** (1996) 524 [Yad. Fiz. **59N3** (1996) 552] hep-th/9411023