

Achilleas Passias

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Academic Professional Experience

Associate Professor University of Ioannina; Ioannina, Greece	2025-06-02 –
Postdoctoral Researcher Sorbonne University; Paris, France	2022-07-01 – 2023-12-31
Postdoctoral Researcher National & Kapodistrian University of Athens; Athens, Greece	2021-07-01 – 2022-05-31
Junior Research Chair holder École Normale Supérieure; Paris, France	2019-10-02 – 2021-10-01
Postdoctoral Researcher Uppsala University; Uppsala, Sweden	2016-09-26 – 2019-09-30
Postdoctoral Researcher University of Milano-Bicocca; Milan, Italy	2013-10-01 – 2016-09-30
Teaching Assistant King's College London; London, United Kingdom Courses: Quantum Field Theory, Supersymmetry, Advanced Quantum Field Theory	academic years 2010 – 2012

Education

Ph.D. in Theoretical Physics King's College London; London, United Kingdom Supervisor: Prof. Dario Martelli Thesis: "Supersymmetric backgrounds of M-theory and AdS_4/CFT_3 correspondence"	2010-10-01 – 2014-01-01
M.Sc. in Quantum Fields and Fundamental Forces Imperial College London; London, United Kingdom Classification: Distinction	2009-10-03 – 2010-11-01
Ptychion in Physics University of Patras; Patras, Greece Graduation Grade Point Average: 8.04/10	2004-09-21 – 2008-07-08

Awards

- Greek State Scholarships Foundation scholarship (academic years 2011 – 2013)
- A. G. Leventis Foundation grant (academic years 2011 – 2012, 2012 – 2013)
- STFC studentship (academic years 2010 – 2013)
- 2010 Abdus Salam Postgraduate Prize, Imperial College London
for the best performance in the M.Sc.
- Greek State Scholarships Foundation award (academic years 2004 – 2005, 2005 – 2006)

Publications

1. *On $AdS_2 \times S^7$, its $\mathbb{Z}_k$ orbifold and their dual quantum mechanics*, arXiv:2503.23227; with Y. Lozano and N. Macpherson
2. *G-structures for black hole near-horizon geometries*, J. High Energy Phys. 06 (2024) 056; with A. Legramandi and N. Macpherson
3. *Superstrings on Penrose limits of AdS_7 solutions*, J. High Energy Phys. 10 (2023) 032
4. *A plethora of Type IIA embeddings for $d = 5$ minimal supergravity*, J. High Energy Phys. 01 (2023) 047; with C. Couzens and N. Macpherson
5. *On Type IIA AdS_3 solutions and massive GK geometries*, J. High Energy Phys. 08 (2022) 095; with C. Couzens and N. Macpherson
6. *$\mathcal{N} = (2, 2)$ AdS_3 from D3-branes wrapped on Riemann surfaces*, J. High Energy Phys. 02 (2022) 189; with C. Couzens and N. Macpherson
7. *On supersymmetric AdS_3 solutions of Type II*, J. High Energy Phys. 08 (2021) 168; with D. Prins
8. *On AdS_3 solutions of Type IIB*, J. High Energy Phys. 05 (2020) 048; with D. Prins
9. *Holographic duals of five-dimensional SCFTs on a Riemann surface*, J. High Energy Phys. 01 (2019) 058; with I. Bah and P. Weck
10. *6D attractors and black hole microstates*, J. High Energy Phys. 12 (2018) 001; with S. M. Hosseini, K. Hristov and A. Zaffaroni
11. *$AdS_2 \times S^7$ solutions from $D0 - F1 - D8$ intersections*, J. High Energy Phys. 10 (2018) 190; with G. Dibitetto
12. *A massive class of $\mathcal{N} = 2$ AdS_4 IIA solutions*, J. High Energy Phys. 10 (2018) 071; with D. Prins and A. Tomasiello
13. *AdS_3 solutions with exceptional supersymmetry*, Fortsch. Phys. 66 (2018) no.10, 1800060; with G. Dibitetto, G. Lo Monaco, N. Petri and A. Tomasiello
14. *Perturbing $AdS_6 \times_w S^4$: linearised equations and spin-2 spectrum*, J. High Energy Phys. 07 (2018) 058; with P. Richmond
15. *$\mathcal{N} = 2$ supersymmetric AdS_4 solutions of type IIB supergravity*, J. High Energy Phys. 04 (2018) 005; with G. Solard and A. Tomasiello
16. *AdS_5 compactifications with punctures in massive IIA supergravity*, J. High Energy Phys. 11 (2017) 050; with I. Bah and A. Tomasiello
17. *Holographic microstate counting for AdS_4 black holes in massive IIA supergravity*, J. High Energy Phys. 10 (2017) 190; with S. M. Hosseini and K. Hristov
18. *Spin-2 spectrum of six-dimensional field theories*, J. High Energy Phys. 12 (2016) 050; with A. Tomasiello
19. *Universal consistent truncation for $6d/7d$ gauge/gravity duals*, J. High Energy Phys. 10 (2015) 187; with A. Rota and A. Tomasiello
20. *Six-dimensional superconformal theories and their compactifications from type IIA supergravity*, Phys. Rev. Lett. 115 (2015) 6, 061601; with F. Apruzzi, M. Fazzi, A. Rota and A. Tomasiello
21. *Supersymmetric AdS_5 solutions of massive IIA supergravity*, J. High Energy Phys. 06 (2015) 195; with F. Apruzzi, M. Fazzi and A. Tomasiello

22. *AdS₆ solutions of type II supergravity*, J. High Energy Phys. 11 (2014) 099, 05 (2015) 012; with F. Apruzzi, M. Fazzi, D. Rosa and A. Tomasiello
23. *N = 2 supersymmetric AdS₄ solutions of M-theory*, Commun. Math. Phys. 325 (2014) 487-525; with M. Gabella, D. Martelli and J. Sparks
24. *The gravity dual of supersymmetric gauge theories on a two-parameter deformed three-sphere*, Nucl. Phys. B 877 (2013) 51-72; with D. Martelli
25. *The supersymmetric NUTs and bolts of holography*, Nucl. Phys. B 876 (2013) 810-870; with D. Martelli and J. Sparks
26. *A note on supersymmetric AdS₆ solutions of massive type IIA supergravity*, J. High Energy Phys. 01 (2013) 113
27. *The gravity dual of supersymmetric gauge theories on a squashed three-sphere*, Nucl. Phys. B 864 (2012) 840-868; with D. Martelli and J. Sparks
28. *The free energy of N = 2 supersymmetric AdS₄ solutions of M-theory*, J. High Energy Phys. 10 (2011) 039; with M. Gabella, D. Martelli and J. Sparks

* a list of publications with links to e-prints is available on inspirehep.net 

Talks

Conferences

1. Workshop on Holography and the Swampland
2022-09-08; Corfu Summer Institute; Corfu, Greece
2. Kick-off Meeting of the International Network on Quantum Fields and Strings
2021-06-09; Tours, France
3. Tenth Crete Regional Meeting in String Theory
2019-09-16; Kolymbari, Greece
4. Holography, Generalized Geometry and Duality Workshop
2019-05-07; Mainz Institute for Theoretical Physics; Mainz, Germany
5. Supersymmetric Localization and Holography Workshop
2017-10-18; University of Michigan; Ann Arbor, USA
6. Geometry, Gravity and Supersymmetry Workshop
2017-04-27; Mainz Institute for Theoretical Physics; Mainz, Germany
7. Eighth Crete Regional Meeting in String Theory
2015-07-09; Nafplio, Greece
8. Gauge/Gravity Duality 2015 Conference
2015-04-14; Galileo Galilei Institute for Theoretical Physics; Florence, Italy
9. Strings, Cosmology and Gravity Student Conference
2012-10-31; Institut Henri Poincaré; Paris, France
10. XVIII European Workshop on String Theory
2012-09-20; Corfu Summer Institute; Corfu, Greece

Seminars

1. 2023-10-05; Rencontres Théoriciennes, Institut Henri Poincaré
2. 2022-04-22; Exceptional Geometry Seminar series (online)
3. 2018-10-26; Durham University
4. 2018-09-11; University of California, Los Angeles
5. 2018-06-26; Johns Hopkins University
6. 2018-06-13; Institut de Physique Théorique – CEA Saclay
7. 2018-06-11; Institut de Physique Nucléaire de Lyon
8. 2017-05-31; Swansea University
9. 2016-01-27; King's College London
10. 2015-11-24; Joint Seminar in Theoretical High Energy Physics; Neve Shalom, Israel
11. 2015-11-11; Oviedo University
12. 2015-10-12; KU Leuven
13. 2015-09-29; Institut de Physique Théorique – CEA Saclay
14. 2012-11-07; University of Padova
15. 2012-10-12; University of Milano-Bicocca

Academic Activities

- Referee for: Journal of High Energy Physics, European Physical Journal C, SciPost