

CURRICULUM VITAE**GENERAL INFORMATION**

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ONLINE PROFILES

Google scholar	https://scholar.google.com/citations?user=t421n-oAAAAJ
ORCID	https://orcid.org/0000-0001-7307-5175
SCOPUS	https://www.scopus.com/authid/detail.uri?authorId=56220579700
Semantic scholar	https://www.semanticscholar.org/author/Charis-Anastopoulos/48680866

CURRENT POSITION(S)

2021 – now	Associate Professor Department of Physics, University of Patras, Greece
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PREVIOUS POSITION(S)

2016- 2021	Assistant Professor Department of Physics, University of Patras, Greece
2014 – 2016	Lecturer Department of Physics, University of Patras, Greece
2010 - 2014	Elected Lecturer , (tenured delayed due to budget constraints from Greek financial crisis) Department of Physics, University of Patras, Greece
2008 – 2013	Lecturer (non-tenured) Department of Optics and Optometry, ATEI of Patras, Greece
2004 – 2010	Postdoctoral Researcher Department of Physics, University of Patras, Greece
2001 – 2003	Postdoctoral Researcher Spinoza Instituut, Utrecht University, the Netherlands
1998 – 2001	Postdoctoral Researcher Department of Physics, University of Maryland, USA
1997 – 1998	Postdoctoral Researcher Department of Physics, University of Barcelona, Spain
1996 -- 1997	Postdoctoral Researcher Department of Physics, Imperial College, London, UK

EDUCATION	
1993-1996	Department of Physics, Imperial College, London, UK Ph.D. Thesis title: Emergence of Classical Behaviour in Quantum Systems
1992 -1993	Department of Physics, Imperial College, London, UK M.Sc. on Quantum Fields and Fundamental Forces
1988 - 1992	Department of Physics, University of Patras, Greece Ptyhio on Physics

RESEARCH GRANTS

Project Title	Funding source	Period	Role	Budget
3-year Researcher Position on Quantum Science and Technology at the University of Patras	Mentzelopoulos Foundation	Spring 2025-Spring 2028	Proposer, Scientific Representative	€120.000
COST Action on Relativistic Quantum Information (CA23115)	COST Association, EU	Sep. 2024-Sep.2028	Main Proposer, Chair, Scientific Representative	~ €700.000
Conference on Relativistic Quantum Information 2023	Centre Samy Maroun	May 2023-Aug. 2023	Proposer, Scientific Representative	€5.000
Foundations of Relativistic Quantum Information	Julian Schwinger Foundation, USA	Feb. 2021-Jan. 2023	Principal Investigator	\$90.000
The Influence of Gravity on Quantum Entanglement.	ESPA, Greek Ministry of Development	Jan. 2020 – Apr. 2021	Principal Investigator	€42.000
Conference on Relativistic Quantum Information 2020.	United States Air Force	Apr. 2020 – Dec. 2020	Proposer, Scientific Representative	\$5.000
Quantum Information in Relativistic Systems	ELKE, University of Patras, Karatheodoris Research Grant	Jul. 2016 – Sep. 2019	Principal Investigator	€30.000

MEMBERSHIPS

2024-	Chair, COST Action CA23115 (Relativistic Quantum Information)
2023-	Member, International Society of Quantum Gravity
2022 -	Governing Board Member, International Society on Relativistic Quantum Information.
2022-	Associate Member, Large Interferometric Space Antenna (LISA) consortium.
2021-	Member of Science Definition Team, NASA's Deep Space Quantum Link Mission.
2018- 2021	National Representative, COST action CA16104 (Gravitational Waves, Black Holes, Fundamental Physics).
2017-	Member, International Society on Relativistic Quantum Information.

CONFERENCE ORGANIZATION

Title	Location	Year
National Workshop on "Quantum Probability and Information",	Patras	2005
International Conference on "Gravitational Waves, Black Holes and Fundamental Physics".	Athens	2019
13 th Annual Conference on "Relativistic Quantum Information-North".	Chania	2023

DISTINCTIONS AND AWARDS

2024	Among top 2% of scientists in field "Nuclear and Particle Physics" for 2023 in the Stanford+Elsevier list.
2022	NASA group achievement award as a member of the Science Definition Team of the Deep Space Quantum Link mission concept.
2020	Honorable mention, Gravity Research Foundation 2020 Awards for Essays on Gravitation.
2013	Article Class. Quant. Grav. 30, 165007 (2013) selected among the top of the year by editors
2008	Article Class. Quant. Grav. 25, 154003 (2008) selected among the top of the year by editors
2004	Young Researcher Prize, Empirikion Foundation, Greece.
1992	Xanthopoulos-Pnevmatikos prize, Physics Summer School, University of Crete, Greece.

CONFERENCES/WORKSHOPS	
1.	14 th Annual International Conference on Relativistic Quantum Information (North), July 2024, Chania, Greece. (invited)
2.	13 th Annual International Conference on Relativistic Quantum Information (North), May 2023, Chania, Greece. (organizer)
3.	CausalWorlds, September 2022, ETH Zurich, Switzerland. (invited)
4.	Relativistic Quantum Information-North Online, September 2022, Hosted by University of Waterloo, Canada. (invited)
5.	Mathematical and Conceptual Aspects of Quantum Theory, June 2022, BIRS-Casa Oaxaca, Mexico. (invited)
6.	3 rd European Physical Society Meeting on Gravitation, May 2022, Nice, France. (invited)
7.	Relativistic Quantum Information-North Online, September 2021, Hosted by University of Waterloo, Canada. (invited)
8.	2 nd International Conference on Gravitational Waves, Black Holes and Fundamental Physics, January 2019, Athens, Greece. (organizer)
9.	10 th Annual International Conference on Relativistic Quantum Information (North), May 2019, Tainan, Taiwan. (invited)
10.	Quantum Causal Structures, July 2019, Department of Computer Science, University of Oxford, UK.
11.	9th International Conference on Relativistic Quantum Information (North), September 2018, Vienna, Austria.
12.	1st Int. Conference on Gravitational Waves, Black Holes and Fundamental Physics, January 2018, University of Malta, Malta.
13.	International Workshop on Gravitational Decoherence, July 2017, Bad Honnef, Germany. (invited)
14.	Quantum Europe 2017: Towards the Quantum Technology Flagship, February 2017, Malta.
15.	Annual International Conference on Relativistic Quantum Information (North), July 2015, Dartmouth College, USA. (invited)
16.	20th Peyresq Workshop on Micro and Macro Structure of Spacetime, June 2015, Peyresq, France. (invited)
17.	EmQM15: Emergent Quantum Mechanics, October 2015, Vienna, Austria.
18.	Foundations of Quantum Mechanics and Quantum Gravity, April 2014, Imperial College, London.
19.	13th Peyresq Meeting on Micro- and Macro- Structure of Spacetime, Peyresq, France, 2008. (invited)
20.	3 rd International Workshop DICE2006: Quantum Mechanics between Decoherence and Determinism, September 2006, Castello di Piombino, Tuscany, Italy.
21.	2 nd International Workshop on Decoherence, DICE2004: Information, Complexity and Entropy, September 2004, Castello di Piombino, Tuscany, Italy.
22.	Glafka–2004: Iconoclastic Approaches to Quantum Gravity, June 2004, Athens, Greece. (invited)
23.	7th Peyresq Meeting on Quantum and Stochastic Gravity, Brane and String Cosmology, June 2002, Peyresq, France. (invited)
24.	General Relativity 16, July 2001, Durban, South Africa.

25. 9th Marcel Grossmann IX conference on General Relativity, July 2000, Rome, Italy.
26. 2nd Peyresq Workshop on Recent Developments in Gravitation, Cosmology, and Quantum Field Theory, July 1998, Peyresq, France. (invited)

TEACHING ACTIVITIES

2014-2024	Quantum Physics II (undergraduate core course), University of Patras.
2018-2024	Quantum Mechanics I (postgraduate core course), University of Patras.
2019-2024	Quantum Field Theory (postgraduate optional course), University of Patras.
2014-2024	Statistical Mechanics, (postgraduate optional course), University of Patras.
2006-2024	General Relativity (postgraduate optional course), University of Patras.
2014-2018 2021-2024	Modern Physics (undergraduate optional course), University of Patras.
2014-2017	Special Topics in Quantum Theory (undergraduate optional course), University of Patras.
2012-2013	Applied Optics (undergraduate core course), ATEI of Patras.
2012-2013	Technology of Optical Instruments (undergraduate core course), ATEI of Patras.
2009-2011	Physics I (core course), ATEI of Patras.
2000-2001	Advanced General Relativity (postgraduate optional course), University of Maryland.
1999-2000	Special Topics on Quantum Theory (postgraduate optional course), University of Maryland.

SUPERVISION OF GRADUATE STUDENTS & POSTDOCTORAL FELLOWS

2014 – now	Supervision of 4 postdocs/13 Ph.D. students/21 M.Sc. students. Supervisor of 8 awarded Ph.Ds, 5 Ph.D. students currently active Department of Physics, University of Patras, Greece
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AWARDED DOCTORATES

Name	Title	Year
Dimitrios Moustos	Quantum information and thermodynamics of general relativity	2018
Theodora Kolioni	Open quantum systems and applications to quantum information theory	2019
Nikolaos Kollas	Generalized entanglement in quantum information theory: optimization free measures and faithful extraction protocols	2020
Nikolaos Papadatos	Quantum thermodynamics of moving systems	2022
Dimitrios Kotopoulos	Singular spacetimes in General Relativity	2023

AWARDED DOCTORATES

Maria Papageorgiou	Local measurements in Relativistic Quantum Information: localisation and signalling	2023
Michalis Lagouvardos	Quantum information in presence of gravity.	2023
Eirini Sourtzinou	Thermodynamics in a gravitational field	2024

SUPERVISOR OF INDIVIDUAL GRANTS

Name	Type of grant	Years
Dimitrios Moustos	Ph.D.-- IKY	2016-2018
Theodora Kolioni	Ph.D.-- IKY	2019
Dimitris Kotopoulos	Ph.D.--Mentzelopoulos Foundation	2018-2021
Dimitrios Moustos	PostDoc--IKY	2018-2021
Pelagia Zogogianni	Ph.D.-- ELIDEK	2022-24
Michalis Lagouvardos	Ph.D.--IKY	2022-23
Maria Papageorgiou	Ph.D.—AHEPA grant	2020,2022

REVIEWING ACTIVITIES

2024	Panel member on “Fundamental Constituents of Matter”, National Science Center, Research Grants, Poland
2022	Evaluator, Swiss National Science Foundation
2022	Evaluator, ERC Grants
2022-	Associate Member, Large Interferometric Space Antenna (LISA) consortium.
2021	Evaluator, National Science Center, Poland.
2019	Evaluator, State Scholarship Foundation (IKY) doctoral/ postdoctoral grants program, Greece.
2018	Evaluator, Hellenic Open University tutor selection, Greece.
2016, 2020	Evaluator, FONDECYT research grant program, Chile.

FELLOWSHIPS	
2005-2006	External Collaborator in Pythagoras II program on Quantum Computation and Quantum Information
2004-2006	Marie Curie Reintegration Grant, European Commission. Project title: Quantum Probability, Geometry and Gravity
2004-2005	Research Scholarship, Empirikion Foundation, Greece.
2001-2003	Marie Curie Fellowship of the European Commission. Project title: Relation of quantum probability to phase space geometry
2000-2001	Postdoctoral Fellowship, Onassis Foundation, Greece.
1998-2000	Research Fellowship, National Science Foundation, USA.
1997-1998	Research Fellowship, Government of Catalonia, Spain.
1993-1996	Greek State Scholarship for doctorate studies. Greece.
1992-1993	Postgraduate Fellowship from Bodossakis Foundation, Greece.

PUBLICATION LIST

Articles in journals.

1. Generalised Uncertainty Relations and Long Time Limits for Quantum Brownian Motion Models, C. A. and J. J. Halliwell, Phys. Rev. D51, 6870 (1995). DOI: [10.1103/PhysRevD.51.6870](https://doi.org/10.1103/PhysRevD.51.6870)
2. Decoherence and Classical Predictability of Phase Space Histories, C.A., Phys. Rev. E53, 4711 (1996). DOI: [10.1103/PhysRevE.53.4711](https://doi.org/10.1103/PhysRevE.53.4711)
3. Quantum Theory of Nonrelativistic Particles Interacting with Gravity, C. A., Phys. Rev. D54, 1600 (1996). DOI: [10.1103/physrevd.54.1600](https://doi.org/10.1103/physrevd.54.1600)
4. Coarse Grainings and Irreversibility in Quantum Field Theory, C. A., Phys. Rev. D56, 1009 (1997). DOI: [10.1103/PhysRevD.56.1009](https://doi.org/10.1103/PhysRevD.56.1009)
5. N - Particle Sector of Quantum Field Theory as a Quantum Open System, C. A., Phys. Rev. D56, 6702 (1997). DOI: [10.1103/PhysRevD.56.6702](https://doi.org/10.1103/PhysRevD.56.6702)
6. Selection of Preferred Consistent Sets, C. A., Int. J. Theor. Phys. 37, 2261 (1998). DOI: [10.1023/A:1026658523246](https://doi.org/10.1023/A:1026658523246)
7. Non-Equilibrium Quantum Electrodynamics, C. A. and A. Zoupas, Phys. Rev. D58, 105006 (1998). DOI: [10.1103/physrevd.58.105006](https://doi.org/10.1103/physrevd.58.105006)
8. Information Measures and Classicality in Quantum Mechanics, C. A., Phys. Rev. D59, 045001 (1999). DOI: [10.1103/PhysRevD.59.045001](https://doi.org/10.1103/PhysRevD.59.045001)
9. Two-level Atom-Field Interaction: Exact Master Equation for Non-Markovian Dynamics, Decoherence and Relaxation, C. A. and B. L. Hu, Phys. Rev. A62, 033821 (2000). DOI: [10.1103/PhysRevA.62.033821](https://doi.org/10.1103/PhysRevA.62.033821)
10. Quantum Fields in Non-Static Background: α Histories Perspective, C. Anastopoulos, J. Math. Phys. 41, 617 (2000). DOI: [10.1063/1.533155](https://doi.org/10.1063/1.533155)
11. History Quantisation of Parameterised Systems Development of a General Algorithm, C. A. and N. Savvidou, Class. Quant. Grav. 17, 2463 (2000). DOI: [10.1088/0264-9381/17/13/301](https://doi.org/10.1088/0264-9381/17/13/301)
12. Continuous-time Histories: Observables, Probabilities, Phase Space Structure and the Classical Limit, C. A., J. Math. Phys. 42, 3225 (2001). DOI: [10.1063/1.1383975](https://doi.org/10.1063/1.1383975)
13. Quantum Mechanical Histories and the Berry Phase, C. A. and N. Savvidou, Int. J. Theor. Phys. 41, 529 (2002). DOI: [10.1023/A:1025706632036](https://doi.org/10.1023/A:1025706632036)
14. Quantum Theory without Hilbert Spaces, C. A., Found. Phys. 31, 1545 (2001). DOI: [10.1023/A:1012690715414](https://doi.org/10.1023/A:1012690715414)
15. Quantum Correlation Functions and the Classical Limit, C. A., Phys. Rev. D63, 125024 (2001). DOI: [10.1103/PhysRevD.63.125024](https://doi.org/10.1103/PhysRevD.63.125024)
16. Frequently Asked Questions about Decoherence, C. A., Int. J. Theor. Phys. 41, 1573 (2002). DOI: [10.1023/A:1020144800650](https://doi.org/10.1023/A:1020144800650)
17. Quantum Processes on Phase Space, C. A., Ann. Phys. 303, 273 (2003). DOI: [10.1016/S0003-4916\(03\)00006-X](https://doi.org/10.1016/S0003-4916(03)00006-X)
18. Role of Phase Space Geometry in Heisenberg Uncertainty Relations, C. A. and N. Savvidou, Ann. Phys. 308, 329 (2003). DOI: [10.1016/S0003-4916\(03\)00145-3](https://doi.org/10.1016/S0003-4916(03)00145-3)
19. Spin-Statistics Theorem and Geometric Quantization, C. A., Int. J. Mod. Phys. A 19, 655 (2004). DOI: [10.1142/S0217751X04017860](https://doi.org/10.1142/S0217751X04017860)

20. Coherent States of Spinning Relativistic Particles, C. A., J. Phys. A: Math. Gen. 37, 8619 (2004). DOI: [10.1088/0305-4470/37/36/004](https://doi.org/10.1088/0305-4470/37/36/004)
21. On the Relation between Quantum Mechanical Probabilities and Event Frequencies, C. A., Ann. Phys. 313, 368 (2004). DOI: [10.1016/j.aop.2004.05.002](https://doi.org/10.1016/j.aop.2004.05.002)
22. Non-Markovian qubit dynamics in a thermal field bath: Relaxation, S. Shresta, C. A., A. Dragulescu and B. L. Hu, Phys. Rev. A 71, 022109 (2005). DOI: [10.1103/PhysRevA.71.022109](https://doi.org/10.1103/PhysRevA.71.022109)
23. History Minisuperspace Models, C. A. and N. Savvidou, Class. Quant. Grav. 22, 1841 (2005). DOI: [10.1088/0264-9381/22/9/023](https://doi.org/10.1088/0264-9381/22/9/023)
24. Classical Vs Quantum Probability in Sequential Measurements, C. A., Found. Phys. 36, 1601 (2006). DOI: [10.1007/s10701-006-9077-5](https://doi.org/10.1007/s10701-006-9077-5)
25. Time-of-Arrival Probabilities and Quantum Measurements, C. A. and N. Savvidou, J. Math. Phys. 47, 122106 (2006). DOI: [10.1063/1.2399085](https://doi.org/10.1063/1.2399085)
26. Quantum probabilities for time-extended Alternatives, C. A. and N. Savvidou, J. Math. Phys. 48, 032106 (2007). DOI: [10.1063/1.2713078](https://doi.org/10.1063/1.2713078)
27. Time-of-Arrival Probabilities and Quantum Measurements: II Application to tunnelling times, C. A. and N. Savvidou, J. Math. Phys. 49, 022101 (2008). DOI: [10.1063/1.2837428](https://doi.org/10.1063/1.2837428)
28. Intrinsic and Fundamental Decoherence: Issues and Problems, C. A. and B. L. Hu, Class. Quant. Grav. 25, 154003 (2008). DOI: [10.1088/0264-9381/25/15/154003](https://doi.org/10.1088/0264-9381/25/15/154003)
29. Time-of-Arrival Probabilities and Quantum Measurements: III Decay of unstable states, C. A., J. Math. Phys. 49, 022103 (2008). DOI: [10.1063/1.2839920](https://doi.org/10.1063/1.2839920)
30. Gravitational Backreaction in Cosmological Spacetimes, C. A., Phys. Rev. D79, 084029 (2009). DOI: [10.1103/PhysRevD.79.084029](https://doi.org/10.1103/PhysRevD.79.084029)
31. Non-Markovian Entanglement Dynamics of Two Qubits Interacting with a Common EM Field, C. A., S. Shresta and B.L. Hu, Q. Inf. Proc. 8, 549 (2009). DOI: [10.1007/s11128-009-0137-6](https://doi.org/10.1007/s11128-009-0137-6)
32. The Rotating-Wave Approximation: Consistency and Applicability from an Open Quantum System Analysis, C. H. Fleming, N. I. Cummings, C. A. and B. L. Hu, J. Phys. A: Math. Theor. 43, 405304 (2010). DOI: [10.1088/1751-8113/43/40/405304](https://doi.org/10.1088/1751-8113/43/40/405304)
33. Generalized uncertainty relations and entanglement dynamics in quantum Brownian motion models, C. A., S. Kechribaris and D. Mylonas, Phys. Rev. A82, 042119 (2010). DOI: [10.1103/PhysRevA.82.042119](https://doi.org/10.1103/PhysRevA.82.042119)
34. Consistent Thermodynamics for Spin Echoes, C. A. and N. Savvidou, Phys. Rev. E83, 021118 (2011). DOI: [10.1103/physreve.83.021118](https://doi.org/10.1103/physreve.83.021118)
35. Coherences of Accelerated Detectors and the Local Character of the Unruh Effect, C. A. and N. Savvidou, J. Math. Phys. 53, 012107 (2012). DOI: [10.1063/1.3679554](https://doi.org/10.1063/1.3679554)
36. Entropy of Singularities in Self-Gravitating Radiation, C. A. and N. Savvidou, Class. Quant. Grav. 29, 025004 (2012). DOI: [10.1088/0264-9381/29/2/025004](https://doi.org/10.1088/0264-9381/29/2/025004)
37. Non-Markovian Dynamics and Entanglement of Two-Level Atoms in a Common Field, C. Fleming, N. Cummings, C. A. and B. L. Hu, J. Phys A: Math. Theor. 45, 065301 (2012). DOI: [10.1088/1751-8113/45/6/065301](https://doi.org/10.1088/1751-8113/45/6/065301)
38. Time-of-Arrival Probabilities for General Particle Detectors, C. A. and N. Savvidou, Phys. Rev. A86, 012111 (2012). DOI: [10.1103/PhysRevA.86.012111](https://doi.org/10.1103/PhysRevA.86.012111)
39. A Master Equation for Gravitational Decoherence: Probing the Textures of Spacetime, C. A. and B. L. Hu, Class. Quant. Grav. 30, 165007 (2013). DOI: [10.1088/0264-9381/30/16/165007](https://doi.org/10.1088/0264-9381/30/16/165007)

40. Quantum Temporal Probabilities in Tunneling Systems, C. A. and N. Savvidou, *Ann. Phys.* 336, 281 (2013). DOI: [10.1016/j.aop.2013.06.003](https://doi.org/10.1016/j.aop.2013.06.003)
41. Problems with the Newton-Schrodinger equation, C. A. and B. L. Hu, *New J. Phys.* 16, 085007 (2014). DOI: [10.1088/1367-2630/16/8/085007](https://doi.org/10.1088/1367-2630/16/8/085007)
42. The thermodynamics of self-gravitating systems in equilibrium is holographic, C. A. and N. Savvidou, *Class. Quant. Grav.* 31, 055003 (2014). DOI: [10.1088/0264-9381/31/5/055003](https://doi.org/10.1088/0264-9381/31/5/055003)
43. Real-time particle-detection probabilities in accelerated macroscopic detectors, C. A. and N. Savvidou, *Gen. Rel. Grav.* 47, 1842 (2015). DOI: [10.1007/s10714-014-1842-8](https://doi.org/10.1007/s10714-014-1842-8)
44. Probing a Gravitational Cat State, C. A. and B. L. Hu, *Class. Quant. Grav.* 32, 165022 (2015). DOI: [10.1088/0264-9381/32/16/165022](https://doi.org/10.1088/0264-9381/32/16/165022)
45. The thermodynamics of a black hole in equilibrium implies the breakdown of Einstein equations on a macroscopic near-horizon shell, C. A. and N. Savvidou, *JHEP*, 2016-144. DOI: [10.1007/jhep01\(2016\)144](https://doi.org/10.1007/jhep01(2016)144)
46. Non-Markovian time evolution of an accelerated qubit, D. Moustos and C. A., *Phys. Rev D* 95, 025020 (2017). DOI: [10.1103/physrevd.95.025020](https://doi.org/10.1103/physrevd.95.025020)
47. Time-of-Arrival Correlations, C. A. and N. Savvidou, *Phys. Rev. A* 95, 032105 (2017). DOI: [10.1103/physreva.95.032105](https://doi.org/10.1103/physreva.95.032105)
48. Path of a Tunneling Particle, C. A. and N. Savvidou, *Phys Rev. A* 95, 052120 (2017). DOI: [10.1103/physreva.95.052120](https://doi.org/10.1103/physreva.95.052120)
49. Equivalence Principle for Quantum Systems: Dephasing and Phase Shift of Free-Falling Particles, C. A. and B. L. Hu, *Class. Quant. Grav.* 35, 035011 (2018). DOI: [10.1088/1361-6382/aaa0e8](https://doi.org/10.1088/1361-6382/aaa0e8)
50. Decays of Unstable Quantum States, C. A., *Int. J. Theor. Phys.* 58, 890 (2019). DOI: [10.1007/s10773-018-3984-z](https://doi.org/10.1007/s10773-018-3984-z)
51. Time of Arrival and Localization of Relativistic Particles, C. A. and N. Savvidou, *J. Math. Phys.* 60, 032301 (2019). DOI: [10.1063/1.5080930](https://doi.org/10.1063/1.5080930)
52. Multi-Time Measurements in Hawking Radiation: Information at Higher-Order Correlations, C. A. and N. Savvidou, *Class. Quant. Grav.* 37, 025015 (2020). DOI: [10.1088/1361-6382/ab5eb2](https://doi.org/10.1088/1361-6382/ab5eb2)
53. How black holes store information in high-order correlations, C. A. and N. Savvidou, *Int. J. Mod. Phys. D* (2020). <https://doi.org/10.1142/S0218271820430117>
54. Relativistic quantum thermodynamics of moving systems, N. Papadatos and C. A. , *Phys. Rev. D* 102, 085005 (2020). <https://doi.org/10.1103/PhysRevD.102.085005>
55. Detectors interacting through quantum fields: Non-Markovian effects, non-perturbative generation of correlations and apparent non-causality. T. Kolioni and C. A., *Phys. Rev. A* 102, 062207 (2020). <https://doi.org/10.1103/PhysRevA.102.062207>
56. Quantum superposition of two gravitational cat states, C. A. and B. L. Hu, *Class. Quant. Grav.* 37 235012 (2020). <https://doi.org/10.1088/1361-6382/abbe6f>
57. Classification theorem and properties of singular solutions to the Tolman-Oppenheimer-Volkoff equation, C. A. and N. Savvidou, *Class. Quant. Grav.* (2021). <https://doi.org/10.1088/1361-6382/abdf26>
58. Mind-Body Interaction in Modern Physics, C. A., *Found. Phys.* 51, 1 (2021). <https://doi.org/10.1007/s10701-021-00472-7>
59. Gravitational decoherence of photons, M. Lagouvardos and C. A., *Class. Quant. Grav.* 38, 115012 (2021). <https://doi.org/10.1088/1361-6382/abf2f3>

60. Thermodynamics and phase transitions of black holes in contact with a gravitating heat bath, D. Kotopoulos and C. A., *Class. Quant. Grav.* 38, 195026 (2021). <https://doi.org/10.1088/1361-6382/ac2137>
61. Gravitational effects in macroscopic quantum systems: a first-principles analysis, C. A., M. Lagouvardos and N. Savvidou, *Class. Quant. Grav.* 38, 105512 (2021). <https://doi.org/10.1088/1361-6382/ac0bf9>
62. Gravitational Decoherence: A Thematic Overview, C. A. and B. L. Hu, *AVS Quantum Sci.* 4, 015602 (2022). <https://doi.org/10.1116/5.0077536>
63. Quantum Information in Relativity: The Challenge of QFT Measurements, C. A. and N. Savvidou, *Entropy* 24, 4 (2022). <https://doi.org/10.3390/e24010004>
64. Gravity, Quantum Fields, and Quantum Information: Problems with classical channel and stochastic theories, C. A. and B. L. Hu, *Entropy* 24, 490 (2022). <https://doi.org/10.3390/e24040490>
65. The Deep Space Quantum Link: Prospective Fundamental Physics Experiments using Long-Baseline Quantum Optics, M. Mohageg, L. Mazzarella, C. A., et al, *EJP Quantum Technology*, 9, 25 (2022). <https://doi.org/10.1140/epjqt/s40507-022-00143-0>
66. Quantum field theory based quantum information: Measurements and correlations, C. A., B. L. Hu and K. Savvidou, *Ann. Phys.* 450, 169239 (2023). DOI: 10.1088/1361-6382/acfec1
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