

CV
Vasilis K. Oikonomou
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EDUCATION

- PhD in Theoretical Particle and Mathematical Physics, Aristotle University of Thessaloniki, Physics Department, Quantum Field Theories at Finite Temperature and Volume
- Diploma in Physics, Aristotle University of Thessaloniki, Physics Department
- Master Degree in Chemical Education, Chemistry Department, Aristotle University of Thessaloniki

PROFESSIONAL EXPERIENCE

- Staff tenure, Physics Department Aristotle University of Thessaloniki
- Post-Doc Researcher at Max-Planck Institute for Mathematics in the Sciences, Leipzig Germany, Juer-gen Jost Group
- Scientific Associate, Technological Institute Serres
- European Union Funding : Supersymmetric Scenarios for Colliders and the Universe

LECTURES AT ARISTOTLE UNIVERSITY OF THESSALONIKI

- Mathematical Analysis I (Postgraduate Compulsory Course, Physics Department)
- Mathematical Analysis II (Postgraduate Compulsory Course, Physics Department)
- Theoretical Mechanics (Postgraduate Compulsory Course, Mathematics Department)
- Advanced Theoretical Mechanics (Master Course, Physics Department)
- Mathematical Methods for Physicists (Master Course, Physics Department)
- Relativistic Quantum Mechanics (Master Course, Physics Department)

INTERNATIONAL COLLABORATIONS AND INTERNATIONAL MEMBERSHIP

- Member of LISA Cosmology Working Group (LISA CosWG), papers: 2204.05434
- Member of LISA Greek Working Group, white papers: 2209.04358
- ITP, Goethe University, Frankfurt, Germany, 2022-
- Collaboration with Tomsk State Pedagogical University and TUSUR, Tomsk, Russia, 2011-2022
- Collaboration with ICE-ICREA, Barcelona, Spain, 2014-
- Collaboration with Max-Planck Institute for Mathematics in the Sciences, Leipzig, Germany, 2011-
- Tuebingen University, Germany, 2019-
- International Hellenic University, 2011-2020

FUNDED SCIENTIFIC VISITS

- Institute of Theoretical Physics, Goethe University, Frankfurt, Germany, 2024
- Institute of Theoretical Physics, Goethe University, Frankfurt, Germany, 2022
- Max-Planck Institute for Mathematics in the Sciences, Leipzig, Germany, 2014
- Max-Planck Institute for Mathematics in the Sciences, Leipzig, Germany, 2018
- Tuebingen University, ITAAT, Germany 2019
- Laboratory for Theoretical Cosmology, Tomsk State University of Control Systems and Radioelectronics, 634050 Tomsk, Russia (TUSUR), Tomsk State Pedagogical University, 2015
- Laboratory for Theoretical Cosmology, Tomsk State University of Control Systems and Radioelectronics, 634050 Tomsk, Russia (TUSUR), Tomsk State Pedagogical University, 2016
- Laboratory for Theoretical Cosmology, Tomsk State University of Control Systems and Radioelectronics, 634050 Tomsk, Russia (TUSUR), Tomsk State Pedagogical University, 2017
- Laboratory for Theoretical Cosmology, Tomsk State University of Control Systems and Radioelectronics, 634050 Tomsk, Russia (TUSUR), Tomsk State Pedagogical University, 2018

GREEK RESEARCH PROJECTS-GRANTS

12 completed Research Grants, completed with International Hellenic University, 2011-2020

SCIENTIFIC INTERESTS

Cosmology, Inflationary Cosmology, Modified Theories of Gravity, Physics of the Early Universe, Dark Energy, Dark Matter, Supersymmetry, Mathematical Physics, High Energy Physics, Theoretical Physics, Epistemic Game Theory, Game Theory

PUBLICATIONS

254 articles (in 250 corresponding author), 85 single author, in international journals with referees in the field of cosmology, theoretical physics, theoretical astrophysics and mathematical physics, game theory, physical chemistry. 5 Publications in conference proceedings with referees. 3 Publications on Mathematical Economics and Game Theory. 2 Publications in Chemistry-Chemical Physics. 2 Publications-contributions in International Collective Volumes in Physics and Mathematical Physics.

h-index: 55 (Inspires 2024) 50 (Scopus 2024)

DISSEMINATION OF SCIENCE-PUBLIC OUTREACH

My youtube lectures for Python programming for physicists and engineers:
<https://www.youtube.com/channel/UCR1fcHKAgqWJvaTogcGBbJg>

PRIZES-AWARDS-DISTINCTIONS

- Silver Medal, Tomsk State Pedagogical University, Russian Federation, 2021
- Bronze Medal, Tomsk State Pedagogical University, Russian Federation, 2018
- Honorary Full Professor, Tomsk State Pedagogical University, Russian Federation, 2021
- Highly Cited Researchers 2% Harvard list, years 2019-2023

COMMISSIONS OF TRUST

Editorial Board of International Refereed Journals

- Editor in Chief of the international journal “Symmetry” MDPI
- Member of the Editorial Board of the International Journal of Geometric Methods of Modern Physics
- Executive Guest Editor in Physics of the Dark Universe 2024
- Member of the Editorial Board of the international journal “Symmetry” MDPI
- Member of the Editorial Board of the Journal of Modern Physics 2016-2024
- Advisory Board of “SCI” MDPI 2019-2024
- Reviewer Board of the journal “Universe” MDPI
- *Guest Editor* of Physics of the Dark Universe for the special issue: Proceedings of the International Conference “Cosmology and Astrophysics in the Gravitational Wave Astronomy Era 06-10 May 2024” 2024
- *Guest Editor* of Symmetry for the special issue; Cosmology and Extra-galactic Astronomy, 2020-
- *Guest Editor* of Symmetry for 2015-2016 for the special issue Revealing the Symmetries of the Universe: Dark Energy, Inflation and Modified Gravity
- *Guest Editor* of the journal Universe for the special issue F(R) Gravity Cosmology 2018
- *Guest Editor* of Symmetry for the special issue “Inflationary Universe” 2018
- *Guest Editor* of Symmetry for the special issue “Mathematical Cosmology” 2018
- *Guest Editor* of Symmetry for the special issue “Cosmology and Extragalactic Astronomy” 2020-2021

Evaluator for International Research Programs

- External Evaluator for the Alexander von Humboldt Foundation
- External Evaluator for the KU Leuven Research Council
- External Evaluator of Scientific Projects-Proposals for the Dutch Research Council (NWO) Netherlands
- External Evaluator of Scientific Projects-Proposals for INFN, Italy
- External Evaluator of Scientific Projects-Proposals for the Royal Czech Science Foundation-GRS, Czech Republic
- External Evaluator of Scientific Projects-Proposals for the Italian Ministry of Education
- External Evaluator of Scientific Projects-Proposals for the National Science Center, Poland
- External Evaluator of Chilean National Science and Technology Commission (CONICYT - Chile)
- External Evaluator for South Africa National Research Foundation
- Book and Proposal Evaluator for Elsevier
- PhD Evaluator for Napoli University
- PhD Evaluator for British University of Egypt
- PhD Evaluator for Abdul Wali Khan University Mardan

SUPERVISION OF GRADUATE AND UNDERGRADUATE STUDENT AND ARTICLES WITH THEM

COMPLETED

- Diploma Thesis of Student in Technological Educational Institute of Central Macedonia, Serres, Greece with title: Quantum information theory and Quantum computers-2010
- Nicholas Chantzarakis, MSc Diploma Thesis, from Aristotle University → fully funded PhD at Trinity College, Dublin, Ireland (full scholarship), publications in international journals with referees: arxiv numbers: 2009.12897, 1908.09218, 1908.08141, 1907.00403, 1905.01904
- Fotis Fronimos, Research Supervision, from Aristotle University → MSc at Institute of Theoretical Physics, Heidelberg, Germany, publications in international journals with referees: arxiv numbers: 2108.11231, 2108.10841, 2102.02239, 2101.00660, 2011.08680, 2011.03828, 2010.13580, 2009.12897, 2009.06113, 2007.11915, 2007.02309, 2006.05512, 2004.08884, 2003.13724
- Ifigenia Giannakoudi, Diploma Thesis, from Aristotle University → MSc at Institute of Theoretical Physics, Perimeter Institute, Canada (full scholarship), publications in international journals with referees: arxiv numbers: 2205.08599, 2204.02454, 2105.11935
- Kostas Revis, Diploma Thesis, from Aristotle University → MSc at Aachen RWTH, Institute of Theoretical Physics, Germany, publications in international journals with referees: arxiv numbers: 2105.11935
- Eirini Lymperiadou, Supervision of Research, from Aristotle University → MSc at Bonn, Institute of Theoretical Physics, Germany (full scholarship), publications in international journals with referees: arxiv numbers: 2206.00721
- Stavros Venikoudis, MSc Diploma thesis, from Aristotle University → PhD at University of Louvain, Belgium (full scholarship), publications in international journals with referees: arxiv numbers: 2009.06113
- Iordanis Sarikeisoglou, Diploma thesis-Bibliographic on Mathematical Modelling in Game Theory, from Aristotle University → MSc at University of Thessaloniki and data analysis career, Greece, Department of Mathematics.
- Achilles Gitsis, MSc Diploma thesis, from Aristotle University → PhD at University of Wrocław, Poland (full scholarship), publications in international journals with referees: arxiv numbers: 2108.11324, 2105.11935
- Kostas Fasoulakos, Diploma thesis, from Aristotle University → Data Analyst, publications in international journals with referees: arxiv numbers: 2010.13580
- Panos Katzanis, MSc Diploma thesis, from Aristotle University → Prague Charles University (full scholarship) **declined**, Brno Full scholarship, **declined**, MSc Hellenic University and Data Analyst, publications in international journals with referees: arxiv numbers: 2203.09867
- Ilias C. Papadimitriou, Diploma thesis, from Aristotle University → Utrecht University, full scholarship by Union of Greek Shipowners, publications in international journals with referees: arxiv numbers: 2203.09867
- Kostas Folias, MSc Diploma thesis, bibliographic thesis
- Apostolos Giovanakis, Diploma thesis, from Aristotle University → Zurich ETH Master Program, full scholarship by Union of Greek Shipowners and Onassis Foundation, papers 2403.01591
- Maria-Myrto Pegioudi, Diploma thesis, from Aristotle University → MSc Ecole Polytechnique, full scholarship by French Government, 2303.14724
- Gregory Kafanelis, Diploma thesis, from Aristotle University → MSc, LMU Munich, full scholarship by Union of Greek Shipowners, and DAAD, 2312.16324

REVIEWER IN JOURNALS

1. Physics Letters B
2. Nuclear Physics B
3. Classical and Quantum Gravity
4. Physics Letters A
5. Monthly Notices of the Royal Astronomical Society
6. Journal of High Energy Astrophysics
7. Annals of Physics
8. The Astrophysical Journal
9. General Relativity and Gravitation
10. Fortschritte der Physik
11. Science Bulletin
12. Astrophysics and Space Science
13. Zeitschrift für Naturforschung A
14. Physics of the Dark Universe
15. International Journal of Modern Physics D
16. International Journal of Modern Physics A
17. New Astronomy Elsevier
18. Journal of Physics A
19. Gravitation and Cosmology
20. Journal of Cosmology and Astroparticle Physics (JCAP)
21. European Physical Journal C (EPJC)
22. European Physical Journal Plus
23. Chinese Journal of Physics C
24. Scientific Reports, Nature Springer
25. Foundations of Physics
26. International Journal of Geometric Methods of Modern Physics
27. Journal of Modern Physics
28. Advances in High Energy Physics
29. Advances in Astronomy
30. Information Sciences, Elsevier
31. Symmetry
32. Entropy
33. Canadian Journal of Physics
34. Royal Society Open Source

35. International journal of
36. Chinese Journal of Physics Mathematics and Statistics
37. Chinese Journal of Physics
38. Journal of Gravity
39. Universe Journal
40. Advanced Quantum Technologies
41. Universal Journal of Physics and Application
42. Theory in Biosciences
43. Asian Journal of Mathematics and Computer Research Physical Science International Journal
44. Computer Science
45. Journal of Basic and Applied Research international ? Journal of Applied Physical Science International
46. "Nuovo Cimento, Advances in Physics"
47. Universal Journal of Physics and Application
48. Proceedings of the National Academy of Sciences, Physical Sciences (NASA)
49. Physics Essays
50. Asian Journal of Mathematics and Computer Research
51. Hadronic Journal
52. Journal of Geography, Environment and Earth Science International
53. Mathematical Reviews

ORGANIZING COMMITTEE OF INTERNATIONAL CONFERENCES AND MEETINGS

- Local Organizing Committee of Cosmology and Astrophysics in the Gravitational Wave Astronomy Era 06-10 May 2024, Thessaloniki, Greece
- Local Organizing Committee of "Cosmology and Quantum Vacuum 2015, June 2015, Rhodes Greece
- International Advisory Board of "Siberian Cosmology Days 2015", Tomsk, August 2015
- First TUSUR Cosmological Conference, Tomsk, Russia, August 2016
- Local Organizing Committee of "Mini-Workshop on Gravitation and Cosmology", July 2017, Rhodes Greece
- Local Organizing Committee of "Siberian Cosmology Days 2018", August 2018, Tomsk, Russian Federation
- Organizing Committee of "Siberian Spring Cosmology", March 2019, Tomsk, Russian Federation
- Organizing Committee of "Recent Advances in Theoretical Cosmology and Astrophysics", December 2021, Thessaloniki, Greece, online conference
- Organizing Committee, "5th Institute of Space Sciences Summer School (2022), Modified Gravities, Inflation, Primordial Perturbations: Theory and Computing", July 2022, Barcelona, Spain. Fully funded by ICE-ICREA, funding obtained on a competitive basis via proposal submission.

CONFERENCES

- Cosmology and Astrophysics in the Gravitational Wave Astronomy Era, May 2024, Thessaloniki, Greece **Organizer**
- 5th Institute of Space Sciences Summer School on modified gravity, inflation and gravitational waves, July 2022, Barcelona, Spain **Organizer**
- 4th Conference “Physics of Aqueous Solutions” December 2021, Moscow, Russian Federation, online conference **invited talk**.
- Recent Advances in Theoretical Cosmology and Astrophysics, December 2021, Thessaloniki, Greece, online conference **Organizer**
- Cosmology and the Quantum Vacuum 2019, April 2019, Barcelona, Spain **invited talk**
- Siberian Cosmology Days 2018, Tomsk, August 2018, Russian Federation **invited talk**
- 2018 April, Brain storming on neutron stars in modified gravity, Barcelona, Spain **invited talk**
- “Mini-Workshop on Gravitation and Cosmology”, July 2017, Rhodes Greece **Organizer**
- August 2016 Quantum Field Theory and Gravity 2016, Tomsk Russia **invited talk**
- August 2016 First TUSUR Cosmological Conference, Tomsk, Russia, **invited talk**
- July 2015 Compact Stars and Black Holes, Tuebingen, Germany **invited talk**
- June 2015 Cosmology and the Quantum Vacuum, Rhodes, Greece (**Organizer**)
- September 2014 Cosmology and Quantum Vacuum, Benasque Spain **invited talk**
- June 2013 Prague, Quantum Symmetries and Integrability **invited talk**
- September 2012 ICMSQUARE, Budapest, **invited talk**
- October 2012 Leipzig, Symposium on Money Value and Capital Transfers
- January 2012 Leipzig, Rationalizability and Economics
- September 2006 Renormalization Group Equations 2006, Leykada, Greece
- University of Athens September 2005 Third Aegean Summer School on Cosmology and the Early Universe, Chios, Greece
- National Technical University of Athens April 2005 Recent Developments In High Energy Physics, Thessaloniki, Aristotle University of Thessaloniki, Greece
- May 2004 Italo-Hellenic School of Physics 2004, The Physics of LHC, Lecce, Italy, University of Lecce
- September 2003 Second Aegean Summer School on Cosmology and the Early Universe, Syros, Greece
- National Technical University of Athens April 2003 Recent Developments In High Energy Physics, Athens, National Technical University of Athens
- April 2002 Recent Developments In High Energy Physics, Patras, University of Patras September
- 2001 Corfu Summer Institute on Elementary Particle Physics, Corfu, National Technical University of Athens
- July 2001 “Non Linear Dynamics”, Patras, University of Patras, Greece

COMPUTER SKILLS AND LANGUAGES

- MsOffice in Windows, Word, Excel, Access, Internet Explorer, Outlook, PowerPoint, Degrees: Foundation Level Certificate, University of Cambridge, Advanced level Certificate Excellent knowledge of: Mathematica, Maple, Adobe Dreamweaver, Adobe Photoshop 7, Origin, Latex, HTML 4, Director MX
- Excellent knowledge of PYTHON 3.8 for scientific numerical problems in physics.
- Excellent knowledge of English (written/oral skills)
- Italian (Daily Life Knowledge Level)

PUBLICATIONS IN ECONOMICS IN INTERNATIONAL JOURNALS WITH REFEREES

1. Periodic Strategies a New Solution Concept-Algorithm for non-trivial Strategic Form Games, V.K. Oikonomou, Juergen Jost, Advances in Complex Systems, Vol. 20, No. 5 (2017) 1750009
2. Periodic Strategies II: Generalizations and Extensions, V.K. Oikonomou, Juergen Jost, Advances in Complex Systems: Vol. 23, No. 02, 2050005 (2020), arXiv:2005.12832
3. Periodic Strategies and Rationalizability in Perfect Information 2-Player Strategic Form Games, V.K. Oikonomou, Juergen Jost, Journal of Physics: Conference Series, Volume 410, Issue 1, 012070 (2013)

PUBLICATIONS IN CHEMISTRY

1. On Non-Linear Behavior of Viscosity in Low-Concentration Solutions and Aggregate Structures, V.K. Oikonomou, **Symmetry** 2018, 10(9), **368**
2. Towards Modelling Mechanical Shaking Using Potential Energy Surfaces: A Toy Model Analysis Odintsov, S.D. , Oikonomou, V.K. *Symmetry*, 2024, 16(5), 572

PUBLICATIONS IN THEORETICAL PHYSICS, MATHEMATICAL PHYSICS, HIGH ENERGY PHYSICS, THEORETICAL ASTROPHYSICS AND THEORETICAL COSMOLOGY IN INTERNATIONAL JOURNALS WITH REFEREES

- [1] **V. K. Oikonomou**, [arXiv:2409.16095 [gr-qc]].
- [2] **V. K. Oikonomou**, **Physical Review D Accepted** [arXiv:2409.10709 [hep-ph]].
- [3] **V. K. Oikonomou**, *Phys. Lett. B* **856** (2024), 138890 doi:10.1016/j.physletb.2024.138890 [arXiv:2407.12155 [gr-qc]].
- [4] S. D. Odintsov and **V. K. Oikonomou**, *Phys. Dark Univ.* **46** (2024), 101562 doi:10.1016/j.dark.2024.101562 [arXiv:2407.00491 [gr-qc]].
- [5] **V. K. Oikonomou**, *Phys. Rev. D* **110** (2024) no.2, 023535 doi:10.1103/PhysRevD.110.023535 [arXiv:2406.09604 [gr-qc]].
- [6] **V. K. Oikonomou**, *Class. Quant. Grav.* **41** (2024) no.8, 085008 doi:10.1088/1361-6382/ad33cd [arXiv:2403.09818 [gr-qc]].
- [7] **V. K. Oikonomou** and A. Giovanakis, *Phys. Rev. D* **109** (2024) no.5, 055044 doi:10.1103/PhysRevD.109.055044 [arXiv:2403.01591 [hep-ph]].
- [8] **V. K. Oikonomou**, *Nucl. Phys. B* **1000** (2024), 116467 doi:10.1016/j.nuclphysb.2024.116467 [arXiv:2402.02050 [gr-qc]].
- [9] **V. K. Oikonomou**, P. Tsyba and O. Razina, *EPL* **145** (2024) no.4, 49001 doi:10.1209/0295-5075/ad239c [arXiv:2402.02049 [gr-qc]].

- [10] **V. K. Oikonomou**, P. Tsyba and O. Razina, *Annals Phys.* **462** (2024), 169597 doi:10.1016/j.aop.2024.169597 [arXiv:2401.11273 [gr-qc]].
- [11] **V. K. Oikonomou** and G. Kafanelis, *Int. J. Mod. Phys. D* **33** (2024) no.01, 2350114 doi:10.1142/S0218271823501146 [arXiv:2312.16324 [gr-qc]].
- [12] E. Elizalde, S. Nojiri, S. D. Odintsov and **V. K. Oikonomou**, *Phys. Dark Univ.* **45** (2024), 101536 doi:10.1016/j.dark.2024.101536 [arXiv:2312.02889 [gr-qc]].
- [13] S. Nojiri, S. D. Odintsov and **V. K. Oikonomou**, *Phys. Rev. D* **109** (2024) no.4, 044046 doi:10.1103/PhysRevD.109.044046 [arXiv:2311.06932 [gr-qc]].
- [14] **V. K. Oikonomou**, F. P. Fronimos, O. Razina and P. Tsyba, *Symmetry* **15** (2023) no.10, 1897 doi:10.3390/sym15101897
- [15] **V. K. Oikonomou**, *Phys. Dark Univ.* **42** (2023), 101335 doi:10.1016/j.dark.2023.101335 [arXiv:2309.13407 [hep-ph]].
- [16] J. de Haro, S. Nojiri, S. D. Odintsov, **V. K. Oikonomou** and S. Pan, *Phys. Rept.* **1034** (2023), 1-114 doi:10.1016/j.physrep.2023.09.003 [arXiv:2309.07465 [gr-qc]].
- [17] **V. K. Oikonomou**, [arXiv:2309.04850 [astro-ph.CO]].
- [18] S. D. Odintsov, **V. K. Oikonomou**, I. Giannakoudi, F. P. Fronimos and E. C. Lympieriadou, *Symmetry* **15** (2023) no.9, 1701 doi:10.3390/sym15091701 [arXiv:2307.16308 [gr-qc]].
- [19] A. V. Astashenok, S. D. Odintsov and **V. K. Oikonomou**, *Phys. Dark Univ.* **42** (2023), 101295 doi:10.1016/j.dark.2023.101295 [arXiv:2307.14862 [gr-qc]].
- [20] **V. K. Oikonomou**, *Phys. Rev. D* **108** (2023) no.4, 043516 doi:10.1103/PhysRevD.108.043516 [arXiv:2306.17351 [astro-ph.CO]].
- [21] S. D. Odintsov, **V. K. Oikonomou** and G. S. Sharov, *Phys. Lett. B* **843** (2023), 137988 doi:10.1016/j.physletb.2023.137988 [arXiv:2305.17513 [gr-qc]].
- [22] S. D. Odintsov and **V. K. Oikonomou**, *Phys. Rev. D* **107** (2023) no.10, 104039 doi:10.1103/PhysRevD.107.104039 [arXiv:2305.05515 [gr-qc]].
- [23] **V. K. Oikonomou**, K. R. Revis, I. C. Papadimitriou and M. M. Pegioudi, *Int. J. Mod. Phys. D* **32** (2023), 06 doi:10.1142/S0218271823500347 [arXiv:2303.14724 [gr-qc]].
- [24] S. D. Odintsov, **V. K. Oikonomou** and F. P. Fronimos, *Phys. Rev. D* **107** (2023), 08 doi:10.1103/PhysRevD.107.084007 [arXiv:2303.14594 [gr-qc]].
- [25] **V. K. Oikonomou**, *Phys. Rev. D* **107** (2023) no.6, 064071 doi:10.1103/PhysRevD.107.064071 [arXiv:2303.05889 [hep-ph]].
- [26] **V. K. Oikonomou**, *Class. Quant. Grav.* **40** (2023) no.8, 085005 doi:10.1088/1361-6382/acc2a7 [arXiv:2303.06270 [gr-qc]].
- [27] **V. K. Oikonomou**, F. P. Fronimos, P. Tsyba and O. Razina, *Phys. Dark Univ.* **40** (2023), 101186 doi:10.1016/j.dark.2023.101186 [arXiv:2302.07147 [gr-qc]].
- [28] **V. K. Oikonomou**, *Mon. Not. Roy. Astron. Soc.* **520** (2023) no.2, 2934-2941 doi:10.1093/mnras/stad326 [arXiv:2301.12136 [gr-qc]].
- [29] A. V. Astashenok, S. D. Odintsov and **V. K. Oikonomou**, *Symmetry* **15** (2023) no.6, 1141 doi:10.3390/sym15061141 [arXiv:2211.14892 [gr-qc]].
- [30] S. Nojiri, S. D. Odintsov, **V. K. Oikonomou** and A. Constantini, *Nucl. Phys. B* **985** (2022), 116011 doi:10.1016/j.nuclphysb.2022.116011 [arXiv:2210.16383 [gr-qc]].
- [31] S. D. Odintsov and **V. K. Oikonomou**, *Int. J. Mod. Phys. D* **32** (2023) no.01, 2250135 doi:10.1142/S0218271822501358 [arXiv:2210.11351 [gr-qc]].
- [32] **V. K. Oikonomou**, *Nucl. Phys. B* **984** (2022), 115985 doi:10.1016/j.nuclphysb.2022.115985 [arXiv:2210.02861 [gr-qc]].

- [33] A. V. Astashenok, S. D. Odintsov and **V. K. Oikonomou**, Phys. Rev. D **106** (2022) no.12, 124010 doi:10.1103/PhysRevD.106.124010 [arXiv:2209.13693 [gr-qc]].
- [34] **V. K. Oikonomou**, Astropart. Phys. **144** (2023), 102777 doi:10.1016/j.astropartphys.2022.102777 [arXiv:2209.09781 [gr-qc]].
- [35] **V. K. Oikonomou**, EPL **139** (2022) no.6, 69004 doi:10.1209/0295-5075/ac8fb2 [arXiv:2209.08339 [hep-ph]].
- [36] **V. K. Oikonomou**, P. Tsyba and O. Razina, Universe **8** (2022) no.9, 484 doi:10.3390/universe8090484 [arXiv:2209.04669 [gr-qc]].
- [37] N. Karnesis, N. Stergioulas, G. Pappas, C. Anastopoulos, J. Antoniadis, T. Apostolatos, S. Basilakos, K. Destounis, A. Eleni and G. Lukes-Gerakopoulos, *et al.* Int. J. Mod. Phys. D **33** (2024) no.07n08, 2450027 doi:10.1142/S0218271824500275 [arXiv:2209.04358 [gr-qc]].
- [38] S. D. Odintsov and **V. K. Oikonomou**, EPL **139** (2022) no.5, 59003 doi:10.1209/0295-5075/ac8a13 [arXiv:2208.07972 [gr-qc]].
- [39] **V. K. Oikonomou**, Phys. Rev. D **106** (2022) no.4, 044041 doi:10.1103/PhysRevD.106.044041 [arXiv:2208.05544 [gr-qc]].
- [40] S. D. Odintsov and **V. K. Oikonomou**, Phys. Lett. B **833** (2022), 137353 doi:10.1016/j.physletb.2022.137353 [arXiv:2206.06024 [gr-qc]].
- [41] **V. K. Oikonomou** and E. C. Lympriadou, Symmetry **14** (2022) no.6, 1143 doi:10.3390/sym14061143 [arXiv:2206.00721 [gr-qc]].
- [42] **V. K. Oikonomou**, Annalen Phys. **534** (2022) no.8, 2200134 doi:10.1002/andp.202200134 [arXiv:2205.15405 [gr-qc]].
- [43] S. Nojiri, S. D. Odintsov and **V. K. Oikonomou**, Nucl. Phys. B **980** (2022), 115850 doi:10.1016/j.nuclphysb.2022.115850 [arXiv:2205.11681 [gr-qc]].
- [44] **V. K. Oikonomou** and I. Giannakoudi, Int. J. Mod. Phys. D **31** (2022) no.09, 2250075 doi:10.1142/S0218271822500754 [arXiv:2205.08599 [gr-qc]].
- [45] S. D. Odintsov and **V. K. Oikonomou**, Phys. Rev. D **105** (2022) no.10, 104054 doi:10.1103/PhysRevD.105.104054 [arXiv:2205.07304 [gr-qc]].
- [46] **V. K. Oikonomou**, Astropart. Phys. **141** (2022), 102718 doi:10.1016/j.astropartphys.2022.102718 [arXiv:2204.06304 [gr-qc]].
- [47] P. Auclair *et al.* [LISA Cosmology Working Group], Living Rev. Rel. **26** (2023) no.1, 5 doi:10.1007/s41114-023-00045-2 [arXiv:2204.05434 [astro-ph.CO]].
- [48] **V. K. Oikonomou** and I. Giannakoudi, Nucl. Phys. B **978** (2022), 115779 doi:10.1016/j.nuclphysb.2022.115779 [arXiv:2204.02454 [gr-qc]].
- [49] S. D. Odintsov, **V. K. Oikonomou** and R. Myrzakulov, Symmetry **14** (2022) no.4, 729 doi:10.3390/sym14040729 [arXiv:2204.00876 [gr-qc]].
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