I. Personal information.

Name & Surname	Antonios Leisos
Position	Associate Professor, Director of Physics Laboratory
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II. Academic Degrees.

1989 – 1994	Bachelor in Physics, University of Athens, Physics Department.
1994 – 1996	Post graduate studies in High Energy Physics, National Research Center for Physics Studies "Demokritos" and National Technical University of Athens - Faculty of Applied Mathematics and Physics.
1996 – 2001	PhD in Experimental High Energy Physics, National Technical University of Athens, Faculty of Applied Mathematics and Physics.
2001 – 2004	Bachelor in Informatics and Telecommunications, University of Athens, Informatics and Telecommunications Department.

III. Professional Experience

2020-	Associate Professor, School of Sciences and Technology, Hellenic Open University.
2020-	Director of the HOU Physics Laboratory
2017 - 2020	Scientific Responsible of the HOU Physics Laboratory
2015 - 2020	Assistant Professor, School of Sciences and Technology, Hellenic Open University.
2009 - 2015	Lecturer, School of Sciences and Technology, Hellenic Open University.
2002 – 2009	Post Doctorate Researcher, School of Sciences and Technology, Hellenic Open University.
2001 – 2002	Military Service.
2000 – 2001	Post Graduate Researcher, Institute for Deep Sea Research and Neutrino Astroparticle Physics, NESTOR
1999 – 2000	Software Engineer, Singular Software SA.
1998 – 1998	Visitor Researcher, Institute for Experimental Physics, University of Hamburg, Germany (DESY).
1994 – 1998	Post graduate scholar, Institute of Nuclear Physics, National Research Center for Physics Studies "Demokritos".

IV. Summary of Scientific-Educational Work

Dr A. Leisos studied Physics in the University of Athens (1994) and then he attended postgraduate courses in the field of High Energy Physics offered by the National Research Center for Physics Studies (NRCPS) "Demokritos" and the National Technical University (Faculty of Applied Mathematics and Physics) (1996). He obtained a scholarship from the Institute of Nuclear Physics (NRCPS "Demokritos") and then he worked for his PhD thesis in the field of Particle Physics. The subject of his thesis was: "Measurement of the Trilinear Gauge Boson Couplings with the Delphi detector at LEP II". In parallel, he worked for the ROSE (Research and development On Silicon for future Experiments) collaboration at the Laboratory of Experimental Physics, Hamburg University (DESY-Germany). In 2000 he joined the NESTOR (Neutrino Extended Submarine Telescope with Oceanographic Research) collaboration and worked for the design and the construction of the Nestor Neutrino Telescope. He was a postgraduate Researcher in the Institute for Deep Sea Research and Neutrino Astroparticle Physics (in Pylos) and participated in the Data Acquisition Research Group of

the Nestor Experiment. In 2005 he joined the CAST (CERN Axion Solar Telescope) collaboration for the search of axions originating from the Sun. Since 2006 he is a member of the KM3NeT collaboration for the design of a very large volume neutrino detector at the bottom of the Mediterranean Sea. In 2012 he joined the ATLAS (A Toroidal LHC ApparatuS) experiment of the Large Hadron Collider (LHC), at the European Organization for Nuclear Research (CERN) in Switzerland. He is the Institute Representative of the "Patras HOU" Atlas group leading research activities including data analysis, software development and detector upgrades. He has been an active member in many Research Programs in the field of Particle Physics and AstroParticle Physics. In 2009 he was appointed Lecturer, in 2015 he was appointed Assistant Professor and in 2020 Associate Professor in the School of Science and Technology of the Hellenic Open University (HOU). Since September of 2015 Dr Leisos is the group leader of the Particle and Astroparticle Physics group of the Hellenic Open University. He has been the Principal Investigator of 4 Research Programs in Particle and Astroparticle Physics: "THALIS – Hellenic Open University – Development and Applications of Novel Instrumentation and Experimental Methods in Astroparticle Physics", "Development of technological applications and experimental methods in Particle and Astroparticle Physics", "Measurement of electroweak parameters via diboson production with the ATLAS detector at LHC", "Student education using experimental methodologies and modern particle and astroparticle physics devices". His research activities include also the study of High Energy Cosmic Rays using the HOU extensive air shower array (Astroneu), while he is leading the effort for the deployment of a school network of educational cosmic ray telescopes in Peloponnese (μNet). He has been tutor and teaching coordinator of many undergraduate and postgraduate annual modules in the Hellenic Open University and he has supervised 14 completed master theses (main supervisor). Currently he supervises 6 PhD students (main supervisor) and 1 master thesis student (main supervisor). In 2017 he was appointed Scientific Responsible and in 2020 Director of the Physics Laboratory of HOU. He is the co-author of 48 journal publications in the field of Particle and Astroparticle Physics and also co-author in more than 600 journal publications of the KM3NeT, ATLAS and DELPHI collaborations.

V. Selected Publications

1. A. Leisos et al, Detection of high energy showers by the Astroneu extensive air shower array, arXiv:1801.04768, New Astronomy, Volume 82, 2021, 101448, ISSN 1384-1076, https://doi.org/10.1016/j.newast.2020.101448.
2. A. Marantis et al, Optimal Observables for the measurement of Anomalous Quartic Gauge Boson Couplings, 2020 Phys. Scr. 95 084013 https://doi.org/10.1088/1402-4896/ab9790
3. G Aad, et al, Measurement of the ZZ Production Cross Section in pp Collisions at root s=13 TeV with the ATLAS Detector, Phys. Rev. Lett. 116, 101801
4. S. Nonis et al, Angular reconstruction of high energy air showers using the radio signal spectrum, 2020 Phys. Scr. 95 084007, https://doi.org/10.1088/1402-4896/ab9f79
5. T. Avgitas et al, The Astroneu Extensive Air Shower Array, 2020 JINST 15 T03003
6. Tsirigotis et al, A low cost hybrid detection system of high energy air showers, Eng. Res. Express 2 025027
7. M. Petropoulos et al, Outreach Activities with the microCosmics detector, 2020 Phys. Educ. 55 055005 https://doi.org/10.1088/1361-6552/ab921b
8. Marantis et al, The ATLAS Fast TracKer—Architecture, Status and High-Level Data Quality Monitoring Framework. Universe. 5. 32. 10.3390/universe5010032.
9. I. Manthos et al, Cosmic Ray RF detection with the ASTRONEU array, arXiv:1702.05794, New Astronomy, Volume 81, 2020, 101443, ISSN 1384-1076, https://doi.org/10.1016/j.newast.2020.101443.
10. M Petropoulos et al, μNet: Towards the 1st array of educational air shower detectors in Greece, International Journal of Modern Physics A, Vol. 25, No 34n35, 2044022 (2020), https://doi.org/10.1142/S0217751X20440224

11. A Leisos et al, Hybrid detection of high energy air showers in urban environments, MDPI, Universe 2019, 5(1), 3
12. A Leisos et al, Hellenic Lyceum Cosmic Observatories Network: Status Report and Outreach Activities, MDPI, Universe 2019, 5(1)
13. A.G. Tsirigotis et al, microCosmics: A low cost educational Cosmic ray telescope, MDPI, Universe 2019, 5(1)
14. S. Tzamarias et al, Calibration procedures for accurate timing and directional reconstruction of EAS particle-fronts with Astroneu stations, arXiv:1702.04902, to appear Instruments and Experimental Techniques, Springer.
15. Georgakopoulou et al, A 100-ps Multi-Time over Threshold Data Acquisition System for Cosmic Ray Detection, arXiv:1702.01066, 2018 Meas. Sci. Technol. https://doi.org/10.1088/1361-6501/aadc48
16. S Adrián-Martínez et al, Letter of intent for KM3NeT 2.0 2016 J. Phys. G: Nucl. Part. Phys. 43 084001
17. Adrián-Martínez, S., Ageron, M., Aharonian, F. et al. The prototype detection unit of the KM3NeT detector. Eur. Phys. J. C 76, 54 (2016). https://doi.org/10.1140/epjc/s10052-015-3868-9
18. G. Aad et al. (ATLAS Collaboration, CMS Collaboration) Combined Measurement of the Higgs Boson Mass in pp Collisions at $\sqrt{s}=7$ and 8 TeV with the ATLAS and CMS Experiments, Phys. Rev. Lett. 114, 191803, (2015)
19. Adrián-Martínez, S., Ageron, M., Aharonian, F. et al. Deep sea tests of a prototype of the KM3NeT digital optical module. Eur. Phys. J. C 74, 3056 (2014). https://doi.org/10.1140/epjc/s10052-014-3056-3
20. A. Leisos et al, A Feasibility Study for the Detection of Supernova Explosions with an Undersea Neutrino Telescope. Nucl. Instr. and Meth. A (2013), http://dx.doi.org/10.1016/j.nima.2012.11.157
21. G. Tsirigotis et al, HOU Reconstruction & Simulation (HOURS): A complete simulation and reconstruction package for Very Large Volume underwater neutrino Telescopes, Nucl. Instr. and Meth. A 626-627 (2011) S185-S187, http://dx.doi.org/10.1016/j.nima.2010.06.258
22. G. Tsirigotis et al, Using HOURS to evaluate Very Large Volume Undersea Neutrino Telescope configurations Nucl. Instr. and Meth. A 626-627 (2011) S188-A190, http://dx.doi.org/10.1016/j.nima.2010.06.364
23. G Tsirigotis et al, Tools and methods for simulation and evaluation of very large volume Cherenkov neutrino detectors, Nuclear Instruments and Methods in Physics Research Section A 639 (2011) 79-82, http://dx.doi.org/10.1016/j.nima.2010.09.040
24. Leisos et al, Evaluation of the discovery potential of an underwater Mediterranean neutrino telescope taking into account the estimated directional resolution and energy of the reconstructed tracks Nucl. Instr. and Meth. A 725 (2013) 55-59, arXiv:1201.5584, 10.1016/j.nima.2012.12.073
25. G. Tsirigotis et al, A reconstruction method for neutrino induced muon tracks taking into account the apriori knowledge of the neutrino source, Nucl. Instr. and Meth. A (2013), http://dx.doi.org/10.1016/j.nima.2012.11.156
26. G. Tsirigotis et al, Reconstruction efficiency and discovery potential of a mediterranean neutrino telescope: A simulation study using the hellenic open university reconstruction & simulation (HOURS) package, Nucl. Instr. and Meth. A (2013), http://dx.doi.org/10.1016/j.nima.2012.11.155
27. G. Bourlis et al, Use of the Multi-Time over Threshold electronics to digitize signals from VLVnT Nucl. Instr. and Meth. A 626-627 (2011) S163-S165, http://dx.doi.org/10.1016/j.nima.2010.04.153
28. G. Tsirigotis et al, Use of floating surface detector stations for the calibration of a deep-sea neutrino telescope, Nucl. Instr. and Meth. A 595 (2008) 80-83, http://dx.doi.org/10.1016/j.nima.2008.07.011
29. Leisos et al, Calibration and Optimization of a Very Large Volume Neutrino Telescope using Extensive Air Showers, Nucl. Instr. and Meth. A 626-627 (2011) S231-S233, http://dx.doi.org/10.1016/j.nima.2010.06.247

30. Leisos et al, Synchronous Detection of Extensive Air Showers by a HELYCON Detector Array and a Deep Sea Underwater Neutrino Telescope: Statistical and Systematic Effects, Nucl. Instr. and Meth. A 639 (2011) 83-87, http://dx.doi.org/10.1016/j.nima.2010.09.141)
31. G. Aggouras et al, Recent results from Nestor, Nucl. Instr. and Meth. A 567 (2006) 452-456, http://dx.doi.org/10.1016/j.nima.2006.05.256
32. G. Aggouras et al, A measurement of the cosmic muon flux with a module of the Nestor Neutrino Telescope, Astroparticle Physics 23 (2005) 377-392, http://dx.doi.org/10.1016/j.astropartphys.2005.02.001
33. G. Aggouras et al, Operation and performance of the NESTOR test detector, Nucl. Instr. and Meth. A 552 (2005) 420-439, http://dx.doi.org/10.1016/j.nima.2005.06.083
34. G. Tsirigotis for the Nestor Collaboration, Nestor first results Eur.Phys.J.C33:S956-S958,2004
35. S. Tzamarias for the Nestor Collaboration, Nestor: a deep-sea neutrino telescope, Nucl.Instrum.Meth.A502:150-154,2003
36. V. A. Zhukov et al, Nestor Experiment In 2003, Phys. At. Nucl. 67 (2004) 2054-2057 Also in Yad. Fiz. 67 (2004) 2075-2078, http://dx.doi.org/10.1134/1.1825528
37. P.Grieder for the NESTOR collaboration, The Nestor Neutrino telescope Published in Nuovo Cim.24C:771-776,2001
38. DELPHI Collaboration, Measurement of the Mass and Width of the W Boson in e+ e- Collisions at = 189 GeV, Phys. Lett., B 511 (2001) 159
39. DELPHI Collaboration, W pair production cross-section and W branching fractions in e+e- interactions at 189 GeV, Phys. Lett., B 479 (2000) 89-100
40. DELPHI Collaboration, W pair production cross-section and W branching fractions in e+ e- interactions at 183-GeV, Phys. Lett., B 456 (1999) 310-321
41. DELPHI Collaboration, Measurement of the mass of the W boson using direct reconstruction at = 183 GeV, Phys. Lett., B 462 (1999) 410-24
42. DELPHI Collaboration, Measurement and interpretation of the W-pair cross-section in e+ e- interactions at 161 GeV, Phys. Lett., B 397 (1997) 158-170
43. DELPHI Collaboration, Measurement of the W-pair cross-section and of the W mass in e+ e- interactions at 172 GeV, Eur. Phys. J., C 2 (1998) 581-595
44. P. Abreu et al, Measurement of Trilinear Gauge Couplings in e+ e- Collisions at 161 GeV and 172 GeV, Phys. Lett., B 423 (1998) 194-206
45. P. Abreu et al, Measurements of the Trilinear Gauge Boson Couplings WWV, (V º Z, γ) in e+ e- Collisions at 183 GeV, Phys. Lett., B 459 (1999) 382-96.
46. P. Abreu et al, Measurement of Trilinear Gauge Boson Couplings WWV, (V º Z, γ) in e+ e- Collisions at 189 GeV, Phys. Lett., B 502 (2001) 9-23
47. G. K. Fanourakis et al, Extended modified observable technique for a multi-parametric trilinear gauge coupling estimation at LEP II, Nucl. Instrum. Methods Phys. Res., A 430 (1999) 474-87 (http://dx.doi.org/10.1016/S0168-9002(99)00214-4)
48. G. K. Fanourakis et al, Multidimensional binning techniques for a two parameter trilinear gauge coupling estimation at LEP II Nucl. Instrum. Methods Phys. Res., A 430 (1999) 455-73, https://doi.org/10.1016/S0168-9002(99)00213-2