

# CURRICULUM VITAE

Nome: **Vladimir Kulikovskiy**

Data e luogo di nascita:

Cittadinanza:

## Formazione:

2002-2008: Lomonosov Moscow State University, Physics Faculty.

Masters degree in nuclear and particle physics, “*Summa Cum Laude*”.

Nome della tesi: “Optimization of the deep underwater neutrino telescope NEMO”.

2011-2013: Università di Genova / Université Paris Diderot (Paris 7).

Dottorato in fisica della materia, particelle e nuclei, “*mention très honorable avec félicitations*”.

Nome della tesi: “Neutrino astrophysics with the ANTARES telescope”.

## Attività lavorativa:

**2008:** Scuola secondaria #7 Odintsovo, Russia, insegnante.

**Insegnamento:** Informatica.

**2008-2016:** Scobeltsyn Institute of Nuclear Physics, Moscow State University, ricercatore.

**Ricerca:** Il rivelatore sottomarino di neutrini NEMO.

**Insegnamento:** Fisica di neutrini.

**2009-2011:** borsa per gli stranieri, INFN Sezione di Genova.

**Ricerca:** Il rivelatore sottomarino di neutrini ANTARES.

**2011-2013:** Dipartimento di Fisica, Università di Genova, Italy. PhD,

IDAPP European doctorate program, co-doctorate at APC, Paris VII.

**Ricerca:** Il rivelatore sottomarino di neutrini ANTARES.

**2014-2015:** borsa postdoc per gli stranieri, LNS Catania.

**Ricerca:** Il rivelatore sottomarino di neutrini KM3NeT: programmazione schede presa dati per i moduli ottici, setup per la calibrazione PMT (DarkBox), calibrazione tilt&compass, calibrazione delle prime stringhe prima della posa in acqua.

**2016-2017:** ASTERICS postdoc, C.P.P.M./CNRS Marsiglia.

**Ricerca:** Il rivelatore sottomarino di neutrini KM3NeT: programmi multi-messaggeri, rivelazione delle supernove, simulazione Geant4.

**2016-:** ricercatore livello III, INFN Sezione di Genova.

**Ricerca:** Il rivelatore sottomarino di neutrini KM3NeT: programmi multi-messaggeri, rivelazione delle supernove, studi di raggi cosmici, simulazione, coordinamento della integrazione delle stringhe a Genova. Analisi di dati acustici per gli studi dei cetacei.

Genova, 01/06/2024

# Publicazioni

Vladimir Kulikovskiy

**h-index:** 46 (01 Giugno 2024, Google Scholar)

## Personal manuscripts and papers in small research groups:

1. C. Hugon and V. Kulikovskiy, “Zero-point energy density at the origin of the vacuum permittivity and photon propagation time fluctuation”, accepted to Physics on 5 december 2023, preprint arXiv:2310.05488 [quant-ph] (personal contribution: idea realisation, calculation, manuscript writing).
2. S. Palmero *et al* , “Towards automatic detection and classification of orca (*Orcinus orca*) calls using cross-correlation methods”, MMS, 39(2), 576–593 (2022) - First published: 26 November 2022, 10.1111/mms.12990, (7 authors, personal contribution: data analysis coordinator).
3. M. Sanguineti *et al* , “Real-Time Continuous Acoustic Monitoring of Marine Mammals in the Mediterranean Sea”, J. Mar. Sci. Eng. 2021, 9(12), 1389; 10.3390/jmse9121389 (4 authors, personal contribution: review, editing).
4. A. Coleiro *et al* , “Combining neutrino experimental light-curves for pointing to the next galactic core-collapse supernova”, EPJ C 80 856 (2020) 10.1140/epjc/s10052-020-8407-7 (5 authors, personal contribution: idea and the analysis realisation, corresponding author).
5. C. Mollo *et al* , “A new instrument for high statistics measurement of photomultiplier characteristics”, JINST 11 (2016) T08002, <http://dx.doi.org/10.1088/1748-0221/11/08/T08002> (11 authors, personal contribution: acquisition setup and acquisition software assembly, analysis software, corresponding author).
6. D. Franco *et al* , “Mass hierarchy discrimination with atmospheric neutrinos in large volume ice/water Cherenkov detectors”, JHEP, 04 (2013) 008 (9 authors, personal contribution: atmospheric fluxes systematic).
7. V. Kulikovskiy, “Neutrino Astrophysics with the ANTARES Telescope”, Springer Thesis (2015), ISBN 978-3-319-20412-3, <http://dx.doi.org/10.1007/978-3-319-20412-3> (Awarded PhD thesis manuscript).
8. M. Taiuti *et al* , “A New Multianodic Large Area Photomultiplier to be used in Underwater Neutrino Detectors”, Nucl. Instr. and Meth. in Phys. A 605 (2009), 293-300 (31 authors, personal contribution: simulations).

## Collaboration papers:

9. SNEWS 2.0 collaboration, S. Al Kharusi *et al* , “SNEWS 2.0: A Next-Generation SuperNova Early Warning System for Multi-messenger Astronomy”, New J. Phys. 23 031201 (2021) doi:10.1088/1367-2630/abde33 (71 authors, personal contribution: details on the KM3NeT efficiency, contribution to the spatial combination software).
10. P20 proto-collaboration, V. Akindinov *et al* , “Letter of interest for a neutrino beam from Protvino to KM3NeT/ORCA”, EPJ C, 79 9 758 (2019) 10.1140/epjc/s10052-019-7259-5.
11. The MesonEx collaboration “Forward Tagger (FT) Technical Design Report”, (2012) <http://www.ge.infn.it/jlab12/tdr.html> (personal contribution - PWO crystals light yield vs temperature study).

## ANTARES:

Personal contribution to the project: data taking shifts, data and simulation quality control, detector calibration, simulation tools development. Particular additional contribution is specified for some papers.

12. N. Reeb *et al* ., “Studying Bioluminescence Flashes with the ANTARES Deep Sea Neutrino Telescope”, Limnol. Oceanogr. Methods (2023), doi:10.1002/lom3.10578.
13. The ANTARES Collaboration, A. Albert *et al* ., “ Review of the online analyses of multi-messenger alerts and electromagnetic transient events with the ANTARES neutrino telescope”, JCAP08 (2023) 072 doi:10.1088/1475-7516/2023/08/072.

14. A. Albert et al., “Hint for a TeV neutrino emission from the Galactic Ridge with ANTARES”, *Phys. Lett. B*, 841, (2023) 137951 doi:10.1016/j.physletb.2023.137951.
15. A. Albert et al., “Search for neutrino counterparts to the gravitational wave sources from LIGO/Virgo O3 run with the ANTARES detector”, *JCAP04* (2023) 004, doi:10.1088/1475-7516/2023/04/004.
16. AMON, ANTARES and HAWC Collaborations, H. A. Ayala Solares et al., “Search for Gamma-Ray and Neutrino Coincidences Using HAWC and ANTARES Data”, *ApJ* 944 (2023) 166, doi:10.3847/1538-4357/acafdd.
17. A. Albert et al., “Limits on the nuclearite flux using the ANTARES neutrino telescope”, *JCAP01* (2023) 012, doi:10.1088/1475-7516/2023/01/012.
18. ANTARES, TA and Pierre Auger Collaborations, A. Albert et al., “Search for Spatial Correlations of Neutrinos with Ultra-High-Energy Cosmic Rays”, *ApJ* 934 n.2 (2022) 164 doi:10.3847/1538-4357/ac6def.
19. A. Albert et al., “Search for non-standard neutrino interactions with 10 years of ANTARES data”, *JHEP* 2022, 48 (2022) doi:10.1007/JHEP07(2022)048.
20. A. Albert et al., “Search for Secluded Dark Matter towards the Galactic Center with the ANTARES neutrino telescope”, *JCAP06* (2022) 028 doi:10.1088/1475-7516/2022/06/028.
21. A. Albert et al., “Search for Solar Atmospheric Neutrinos with the ANTARES neutrino telescope”, *JCAP06* (2022) 018, doi:10.1088/1475-7516/2022/06/018.
22. A. Albert et al., “ Search for Magnetic Monopoles with ten years of the ANTARES neutrino telescope data”, *JHEAp* 34 (2022), doi:10.1016/j.jheap.2022.03.001.
23. The ANTARES collaboration, A. Albert et al., “ANTARES upper limits on the multi-TeV neutrino emission from the GRBs detected by IACTs”, *JCAP* 03 092 (2021) doi:10.1088/1475-7516/2021/03/092.
24. The ANTARES Collaboration, A. Albert et al., “Measurement of the atmospheric  $\nu_e$  and  $\nu_\mu$  energy spectra with the ANTARES neutrino telescope”, *Phys. Lett. B* 816 136228 (2021), doi:10.1016/j.physletb.2021.136228.
25. The ANTARES collaboration, A. Albert et al., “Monte Carlo simulations for the ANTARES underwater neutrino telescope”, *JCAP* 01 064 (2021), doi:10.1088/1475-7516/2021/01/064.
26. The ANTARES collaboration, A. Albert et al., “Constraining the contribution of Gamma-Ray Bursts to the high-energy diffuse neutrino flux with 10 yr of ANTARES data”, *MNRAS*, 500 4 5614–5628 (2021) doi:10.1093/mnras/staa3503.
27. The ANTARES Collaboration, A. Albert et al., “Observation of the cosmic ray shadow of the Sun with the ANTARES neutrino telescope”, *Phys. Rev. D* 102, 122007 (2020), doi:10.1103/PhysRevD.102.122007
28. The ANTARES Collaboration, A. Albert et al., “Combined search for neutrinos from dark matter self-annihilation in the Galactic Center with ANTARES and IceCube”, *Phys. Rev. D*, 102 8 082002 (2020), doi:10.1103/PhysRevD.102.082002.
29. The ANTARES collaboration, A. Albert et al., “Search for neutrino counterparts of gravitational-wave events detected by LIGO and Virgo during run O2 with the ANTARES telescope”, *EPJ C*, 80 5 487 (2022) doi:10.1140/epjc/s10052-020-8015-6.
30. The ANTARES Collaboration (including myself), “A Search for Cosmic Neutrino and Gamma-Ray Emitting Transients in 7.3 yr of ANTARES and Fermi LAT Data”, *Astrophys. J*, 886:98 (2019), doi:10.3847/1538-4357/ab4a74.
31. The ANTARES Collaboration (including myself), “ANTARES neutrino search for Time and Space correlations with IceCube High-Energy neutrino events”, *The Astrophysical Journal*, 879:108 (2019), doi:10.3847/1538-4357/ab253c.
32. The ANTARES Collaboration (including myself), “Measuring the Atmospheric Neutrino oscillation parameters and constraining the 3+1 neutrino model with ten years of ANTARES data”, *J. High Energ. Phys.* 113 (2019), doi:10.1007/JHEP06(2019)113.
33. A. Albert et al., “Erratum to “Results from the search for dark matter in the Milky Way with 9 years of data of the ANTARES neutrino telescope” [*Phys. Lett. B* 769 (2017) 249–254]”, *Phys. Lett. B* 796 (2019) 253 doi:10.1016/j.physletb.2019.05.022

34. ANTARES Collaboration, A. Albert et al., “Search for dark matter towards the Galactic Centre with 11 years of ANTARES data”, *Phys. Lett. B*, 805 135439 (2020), doi:10.1016/j.physletb.2020.135439.
35. The ANTARES and IceCube collaborations, A. Albert et al., “ANTARES and IceCube Combined Search for Neutrino Point-like and Extended Sources in the Southern Sky”, *Astrophys. J* 892 2 92 (2020) doi:10.3847/1538-4357/ab7afb.
36. The ANTARES collaboration, A. Albert et al., “Model-independent search for neutrino sources with the ANTARES neutrino telescope”, *Astropart. Phys.* 114 35–47 (2020) doi:10.1016/j.astropartphys.2019.06.003.
37. A. Albert et al., “Search for Neutrinos from the Tidal Disruption Events AT2019dsg and AT2019fdx with the ANTARES Telescope”, *ApJ* 920 50 (2021), doi:10.3847/1538-4357/ac16d6.
38. The ANTARES Collaboration, A. Albert et al., “ANTARES Search for Point Sources of Neutrinos Using Astrophysical Catalogs: A Likelihood Analysis”, *ApJ* 911 48 (2021) doi:10.3847/1538-4357/abe53c.
39. A. Albert et al., “Search for Multi-messenger Sources of Gravitational Waves and High-energy Neutrinos with Advanced LIGO during its first Observing Run, ANTARES and IceCube”, *ApJ* 870:134 (2019), doi:10.3847/1538-4357/aaf21d.
40. A. Albert et al., “The search for high-energy neutrinos coincident with fast radio bursts with the ANTARES neutrino telescope”, *MNRAS* 482, 184-193 (2019), doi:10.1093/mnras/sty2621.
41. A. Albert et al., “The cosmic ray shadow of the Moon observed with the ANTARES neutrino telescope”, *Eur. Phys. J. C* 78:1006, (2018), doi:10.1140/epjc/s10052-018-6451-3.
42. A. Albert et al., “Joint Constraints on Galactic Diffuse Neutrino Emission from the ANTARES and IceCube Neutrino Telescopes”, *Astrophys. J* (2018) 868:L20, doi:10.3847/2041-8213/aaeefc.
43. A. Albert et al., “Long-term monitoring of the ANTARES optical module efficiencies using 40K decays in sea water”, *Eur. Phys. J. C* (2018) 78:669, doi:10.1140/epjc/s10052-018-6132-2.
44. A. Albert et al., “The Search for Neutrinos from TXS 0506+056 with the ANTARES Telescope”, *ApJL* 863, L30 (2018), doi:10.3847/2041-8213/aad8c0.
45. A. Albert et al., “ All-flavor Search for a Diffuse Flux of Cosmic Neutrinos with Nine Years of ANTARES Data”, *ApJL* 853, L7 (2018), doi:10.3847/2041-8213/aaa4f6.
46. A. Albert et al., “ All-sky search for high-energy neutrinos from gravitational wave event GW170104 with the Antares neutrino telescope”, *Eur. Phys. J. C* 77, 911 (2017), doi:10.1140/epjc/s10052-017-5451-z.
47. S. Bhandari et al. “The SURvey for Pulsars and Extragalactic Radio Bursts II: New FRB discoveries and their follow-up”, *MNRAS* 475, 1427–1446 (2018), doi:10.1093/mnras/stx3074.
48. A. Albert et al., “Search for High-energy Neutrinos from Binary Neutron Star Merger GW170817 with ANTARES, IceCube, and the Pierre Auger Observatory”, *ApJL* 850 L35 (2017), doi:10.3847/2041-8213/aa9aed.
49. B. P. Abbott et al., “Multi-messenger Observations of a Binary Neutron Star Merger”, *ApJL* 848 L12 (2017), doi:10.3847/2041-8213/aa91c9.
50. A. Albert et al., “An Algorithm for the Reconstruction of Neutrino-induced Showers in the ANTARES Neutrino Telescope”, *Astron. J.* 154, 275 (2017), doi:10.3847/1538-3881/aa9709.
51. A. Albert et al., “First all-flavor neutrino pointlike source search with the ANTARES neutrino telescope”, *Phys. Rev. D* 96, 082001 (2017), doi:10.1103/PhysRevD.96.082001.
52. A. Albert et al., “New constraints on all flavor Galactic diffuse neutrino emission with the ANTARES telescope”, *Phys. Rev. D* 96, 062001 (2017), doi:10.1103/PhysRevD.96.062001.
53. A. Albert et al., “Search for relativistic magnetic monopoles with five years of the ANTARES detector data”, *JHEP* 07 (2017) 54, doi:10.1007/JHEP07(2017)054.
54. A. Albert et al., “An algorithm for the reconstruction of high-energy neutrino-induced particle showers and its application to the ANTARES neutrino telescope”, *Eur. Phys. J. C* 77 (2017) 419, doi:10.1140/epjc/s10052-017-4979-2

55. A. Albert et al., “Search for High-energy Neutrinos from Gravitational Wave Event GW151226 and Candidate LVT151012 with ANTARES and IceCube”, *Phys. Rev. D* 96 (2017) 022005, doi:10.1103/PhysRevD.96.022005.
56. E. Petroff et al., “A polarized fast radio burst at low Galactic latitude”, *MNRAS* (2017) 469 (4): 4465–4482, doi:10.1093/mnras/stx1098.
57. A. Albert et al., “Search for Dark Matter Annihilation in the Earth using the ANTARES Neutrino Telescope”, *Physics of the Dark Universe* 16 (2017) 41–48, doi:10.1016/j.dark.2017.04.005.
58. A. Albert et al., “Time-dependent search for neutrino emission from x-ray binaries with the ANTARES telescope”, *JCAP*04(2017)019, doi:10.1088/1475-7516/2017/04/019.
59. A. Albert et al., “Search for high-energy neutrinos from bright GRBs with ANTARES”, *MNRAS* 469, 906–915 (2017), 10.1093/mnras/stx902.
60. A. Albert et al., “Results from the search for dark matter in the Milky Way with 9 years of data of the ANTARES neutrino telescope”, *Phys. Lett. B* 769 (2017) 249, doi:10.1016/j.physletb.2017.03.063.
61. M. André et al., “Sperm whale long-range echolocation sounds revealed by ANTARES, a deep-sea neutrino telescope”, *Sci. Rep.* 7, 45517; doi: 10.1038/srep45517 (2017).
62. X. Durrieu de Madron et al., “Deep sediment resuspension and thick nepheloid layer generation by open-ocean convection”, *J. Geophys. Res. Oceans*, 122, 2291–2318 (2017), doi:10.1002/2016JC012062.
63. S. Adrián-Martínez et al., “Stacked search for time shifted high energy neutrinos from gamma ray bursts with the ANTARES neutrino telescope”, *Eur. Phys. J. C* (2017) 77:20, doi:10.1140/epjc/s10052-016-4496-8
64. The ANTARES Collaboration, S. Adrián-Martínez et al. “Constraints on the neutrino emission from the Galactic Ridge with the ANTARES telescope”, *Phys. Lett. B* 760 (2016) 143, doi:10.1016/j.physletb.2016.06.051.
65. The ANTARES Collaboration, S. Adrian-Martinez et al., “Limits on Dark Matter Annihilation in the Sun using the ANTARES Neutrino Telescope”, *Phys. Lett. B*, 759 (2016) 10, doi:10.1016/j.physletb.2016.05.019.
66. The ANTARES Collaboration, S. Adrian-Martinez et al., “Results of the search for Secluded Dark Matter in the Sun with the ANTARES neutrino telescope”, *JCAP* 5 (2016) 016, doi:10.1088/1475-7516/2016/05/016.
67. The ANTARES, IceCube, LIGO & Virgo collaborations, S. Adrian-Martinez et al., “High-energy Neutrino follow-up search of Gravitational Wave Candidate G184098”, *Phys. Rev. D* 93 (2016) 122010.
68. The ANTARES & IceCube collaborations, S. Adrian-Martinez et al., “The first combined search for neutrino point-sources in the Southern Hemisphere with the ANTARES and IceCube neutrino telescopes”, *Astrophys. J.* 823 (2016) 65.
69. The ANTARES, TAROT & ROTSE Collaborations, S. Croft et al., “Murchison Widefield Array Limits on Radio Emission from ANTARES Neutrino Events”, *Astrophys. Journal* 820 (2016) no.2, L24.
70. The ANTARES, TAROT & ROTSE Collaborations, S. Adrian-Martinez et al., “Optical and X-ray early follow-up of ANTARES neutrino alerts”, *JCAP*02(2016)062.
71. The ANTARES Collaboration, S. Adrian-Martinez et al., “Time calibration with atmospheric muon tracks in ANTARES”, *Astropart. Phys.* 78 (2016) 43–51.
72. The ANTARES Collaboration, S. Adrian-Martinez et al., “Search for muon neutrino emission from GeV and TeV gamma-ray flaring blazars using 5 years of the ANTARES Telescope”, *JCAP*12(2015)014.
73. The ANTARES Collaboration, S. Adrian-Martinez et al., “Search of dark matter annihilation in the galactic centre using the ANTARES neutrino telescope”, *JCAP* 10 (2015) 068.
74. The ANTARES Collaboration, S. Adrian-Martinez et al., “ANTARES constrains a blazar origin of two IceCube PeV neutrino events”, *A&A Lett.* 576 (2015) L8.
75. The ANTARES Collaboration, S. Adrian-Martinez et al., “Constraining the neutrino emission of gravitationally lensed Flat Spectrum Radio Quasars with ANTARES data”, *JCAP*11 (2014) 017.



76. The ANTARES collaboration, S. Adrian-Martinez et al., “A Search for Neutrino Emission from the Fermi Bubbles with the ANTARES Telescope”, EPJ C (2014) 74:2701, doi:10.1140/epjc/s10052-013-2701-6, (148 authors, contributo personale: corresponding author, autore dell’analisi).
77. The ANTARES Collaboration, S. Adrian-Martinez et al., “A search for time dependent neutrino emission from microquasars with the ANTARES telescope”, Journal of High Energy Astrophysics, 3-4 (2014) 9-17.
78. The ANTARES Collaboration, S. Adrian-Martinez et al., “Searches for clustering in the time integrated skymap of the ANTARES neutrino telescope”, JCAP05 (2014) 0001.
79. The ANTARES Collaboration, S. Adrian-Martinez et al., “Searches for point-like and extended neutrino sources close to the Galactic Center using the ANTARES neutrino telescope”, The Astrophysical Journal Letters, 786:L5, 2014.
80. Hans van Haren and the ANTARES Collaboration, “High-frequency internal wave motions at the ANTARES site in the deep Western Mediterranean”, Ocean Dynamics 64 (2014)507-517.
81. The ANTARES Collaboration, S. Adrian-Martinez et al., “First results on dark matter annihilation in the Sun using the ANTARES neutrino telescope”, JCAP11 (2013) 032.
82. The ANTARES Collaboration, S. Adrian-Martinez et al., “Measurement of the atmospheric  $\nu_\mu$  energy spectrum from 100 GeV to 200 TeV with the ANTARES telescope”, Eur. Phys. J. C (2013) 73:2606.
83. The ANTARES Collaboration, S. Adrian-Martinez et al., “Search for muon neutrinos from gamma-ray bursts with the ANTARES neutrino telescope using 2008 to 2011 data”, A&A 559, A9 (2013).
84. The ANTARES collaboration (164 authors), S. Adrian-Martinez et al., “Search for a correlation between ANTARES Neutrinos and Pierre Auger Observatory UHECRs arrival directions”, ApJ 774 (2013) 19.
85. The ANTARES collaboration (154 authors), C. Tamburini et al., “Deep-Sea Bioluminescence Blooms after Dense Water Formation at the Ocean Surface”, PLOS ONE 8 (2013) e67523.
86. The ANTARES collaboration, the LIGO scientific collaboration and the Virgo collaboration (960 authors), S. Adrian-Martinez et al., “A first search for coincident gravitational waves and high energy neutrinos using LIGO, Virgo and ANTARES data from 2007”, JCAP 06 (2013) 008.
87. The ANTARES collaboration, S. Adrian-Martinez et al., “First search for neutrinos in correlation with gamma-ray bursts with the ANTARES neutrino telescope”, JCAP 03 (2013) 006.
88. The ANTARES collaboration, S. Adrian-Martinez et al., “Search for cosmic neutrino point sources with four year data of the ANTARES telescope”, Astrophys. J., 760:53 (2012).
89. The ANTARES collaboration, S. Adrian-Martinez et al., “Measurement of atmospheric neutrino oscillations with the ANTARES neutrino telescope”, Phys. Lett. B 714 (2012) 224-230.
90. The ANTARES collaboration, S. Adrian-Martinez et al., “The positioning system of the ANTARES neutrino telescope”, JINST 7 (2012) T08002.
91. The ANTARES collaboration, S. Adrian-Martinez et al., “Search for neutrino emission from gamma-ray flaring blazars with the ANTARES telescope”, Astropart. Phys. 36 (2012) 204-210.
92. The ANTARES collaboration, S. Adrian-Martinez et al., “Search for relativistic magnetic monopoles with the ANTARES neutrino telescope”, Astropart. Phys. 35 (2012) 634-640.
93. The ANTARES collaboration, S. Adrian-Martinez et al., “Measurement of the group velocity of light in sea water at the ANTARES site”, Astropart. Phys. 35 (2012) 552-557.
94. The ANTARES collaboration, J. A. Aguilar et al. “A method for detection of muon induced electromagnetic showers with the ANTARES detector”, Nucl. Instr. and Meth. in Phys. A 675 (2012) 56-62 (151 authors).
95. The ANTARES collaboration, S. Adrian-Martinez et al., “First search for point sources of high energy cosmic neutrinos with the ANTARES neutrino telescope”, Astrophys. J. Lett. 743 (2011) L14-L19.
96. The ANTARES collaboration, M. Ageron et al., “The ANTARES telescope neutrino alert system (TATOO)”, Astropart. Phys. 35 (2012) 530-536.

97. The ANTARES collaboration, M. Ageron et al., “ANTARES : The first undersea neutrino telescope”, Nucl. Instr. and Meth. in Phys. A 656 (2011) 11-38, doi:10.1016/j.nima.2011.06.103, (contributo personale - varie attività di simulazione, presa dei dati e loro analisi).
98. The ANTARES collaboration, J.A. Aguilar et al., “Search for a diffuse flux of high-energy  $\nu_\mu$  with the ANTARES neutrino telescope”, Phys. Lett. B 696 (2011) 16-22.
99. The ANTARES collaboration, J.A. Aguilar et al., “A fast algorithm for muon track reconstruction and its application to the ANTARES neutrino telescope”, Astropart. Phys. 34 (2011) 652-662.
100. The ANTARES collaboration, J.A. Aguilar et al., “Time calibration of the ANTARES neutrino telescope”, Astropart. Phys. 34 (2011) 539-549.

#### **NEMO:**

Personal contribution to the project: detector configuration simulations, detector construction (integration activities, calibration).

101. The NEMO collaboration (including myself), “Long term monitoring of the optical background in the Capo Passero deep-sea site with the NEMO tower prototype”, Eur. Phys. J. C (2016) 76:68, doi:10.1140/epjc/s10052-016-3908-0.
102. The NEMO collaboration (including myself), “Measurement of the atmospheric muon depth intensity relation with the NEMO Phase-2 tower”, Astropart. Phys. 66 1 (2015), <http://dx.doi.org/10.1016/j.astropartphys.2014.12.010>.
103. The NEMO Collaboration (including myself), “The optical modules of the phase-2 of the NEMO project”, JINST 8 (2013) P07001.
104. The NEMO Collaboration (including myself), “The NEMO project: A status report”, NIM A, 626-627 Suppl. (2011) S25-S29.
105. The NEMO Collaboration (including myself), “Measurement of the atmospheric muon flux with the NEMO Phase-1 detector”, Astropart. Phys. 33:4 (2010) 263-273.

#### **KM3NeT:**

Personal contribution to the project: detector construction (integration activities, calibration), data taking shifts, data and simulation processing, simulation tools development. Particular additional contribution is specified for some papers.

106. The KM3NeT collaboration, S. Aiello et al., “Probing invisible neutrino decay with KM3NeT-ORCA”, JHEP 04 (2023) 090, doi:10.1007/JHEP04(2023)090.
107. The KM3NeT collaboration, S. Aiello et al., “First observation of the cosmic ray shadow of the Moon and the Sun with KM3NeT/ORCA”, EPJC 83 (2023) 344, doi:10.1140/epjc/s10052-023-11401-5.
108. The KM3NeT collaboration, S. Aiello et al., “KM3NeT Broadcast Optical Data Transport System”, JINST 18 (2023)T02001, doi:10.1088/1748-0221/18/02/T02001 (accepted 22 December 2022).
109. The KM3NeT collaboration, S. Aiello et al., “The KM3NeT multi-PMT optical module”, JINST 17 (2022) P07038, doi:10.1088/1748-0221/17/07/P07038.
110. The KM3NeT collaboration, S. Aiello et al., “Nanobeacon: A time calibration device for the KM3NeT neutrino telescope”, NIM A 1040 (2022) 167132, doi:10.1016/j.nima.2022.167132.
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