

# 2023

## International articles with referee

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3. Mixão, Verónica; Pinto, Miguel; Sobral, Daniel; Di Pasquale, Adriano et al. (2023) "ReporTree: a surveillance-oriented tool to strengthen the linkage between pathogen genetic clusters and epidemiological data". *Genome Medicine* 15: 43. <http://dx.doi.org/10.1186/s13073-023-01196-1>.
4. Santos, João Dourado; Sobral, Daniel; Pinheiro, Miguel; Isidro, Joana et al. (2023) "INSaFLU-TELEVIR: an open web-based bioinformatics suite for viral metagenomic detection and routine genomic surveillance". *Research Square*. <https://doi.org/10.21203/rs.3.rs-3556988/v1>.
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6. Exploiting *Locusta migratoria* as a source of bioactive peptides with anti-fibrosis properties using an in silico approach Teixeira C.S.S., Biltres R., Villa C., Sousa S.F., Costa J., Ferreira I.M.P.L.V.O., and Mafra I. *Food and Function* 15 (2) pp.493-502 (2023) Article | DOI: 10.1039/d3fo04246d
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10. Modulation of the functional interfaces between retroviral intasomes and the human nucleosome Mauro E., Lapaillerie D., Tumiotto C., Charlier C., Martins F., Sousa S.F.,

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98. Radioactivity in a bucket Luis Peralta Eur. J. Phys. 45 (2024) 015801 10.1088/1361-6404/ad0346
  99. Improving count rate capability of timing RPCs by increasing the detector working temperature A. Blanco et al. NIMA 1045, 167652, 2023 10.1016/j.nima.2022.167652
  100. A large-area MRPC detector for muon scattering tomography J. Saraiva et al. NIMA 1050, 168183, 2023 10.1016/j.nima.2023.168183
  101. An RPC-PET brain scanner demonstrator: First results Paulo Fonte et al NIMA 1051, 168236, 2023 10.1016/j.nima.2023.168236
  102. Resistive plate chambers for precise measurement of high-momentum protons in short range correlations at R3B M. Xarepe et al., NIM 1055, 168445, 2023 10.1016/j.nima.2023.168445
  103. Sealed (zero gas flow) resistive plate chambers Alberto Blanco, Paulo Fonte, Luis Lopes, Mario Pimenta Eur. Phys. J. Plus 138, 1021 (2023). 10.1140/epjp/s13360-023-04647-1
  104. Advances Towards a Large-Area, Ultra-Low-Gas-Consumption RPC Detector J. Saraiva, C. Alemparte, D. Belver, A. Blanco, J. Callon, J. Collazo, A. Iglesias, L. Lopes Nucl. Instrum. Methods Phys. Res. Sect. A-Accel. Spectrom. Dect. Assoc. Equip. 1046 (2023) 167744 10.1016/j.nima.2022.167744
  105. Observation of collider muon neutrinos with the SND@LHC experiment SND@LHC Colaboration Phys. Rev. Lett. 131, 031802 10.1103/PhysRevLett.131.031802
  106. Exploring parameter spaces with artificial intelligence and machine learning black-box optimization algorithms Fernando Abreu de Souza, Miguel Crispim Romão, Nuno Castro, Mehraveh Nikjoo, Werner Porod Phys. Rev. D 107, 035004 10.1103/PhysRevD.107.035004
  107. Berry: A code for the differentiation of Bloch wavefunctions from DFT calculations Leander Reascos, Fábio Carneiro, André Pereira, Nuno Filipe Castro, Ricardo Mendes Ribeiro Computer Physics Communications 295 (2024) 108972 10.1016/j.cpc.2023.108972
  108. Fitting a Collider in a Quantum Computer: Tackling the Challenges of Quantum Machine Learning for Big Datasets Miguel Caçador Peixoto, Nuno Filipe Castro, Miguel Crispim Romão, Maria Gabriela Jordão Oliveira, Inês Ochoa Front. Artif. Intell. 6 (2023) 1268852 10.3389/frai.2023.1268852
  109. Intermediate levels of scientific knowledge are associated with overconfidence and negative attitudes towards science Simone Lackner, Frederico Francisco, Cristina Mendonça, André Mata and Joana Gonçalves-Sá Nat. Hum. Behav. 7 (2023) 1490-+ 10.1038/s41562-023-01677-8
  110. The effects of weather and mobility on respiratory viruses dynamics before and during the COVID-19 pandemic in the USA and Canada Irma Varela-Lasheras, Lília Perfeito, Sara Mesquita and Joana G Sá PLOS Digital Health 10.1371/journal.pdig.0000405
  111. The gamma/hadron discriminator LCm in realistic air shower array experiments R. Conceicao, P. J. Costa, L. Gibilisco, M. Pimenta, B. Tome Eur. Phys. J. C 83 (2023) 932 10.1140/epjc/s10052-023-12106-5

## Oral Presentations

1. COSTA, P.M. (2023). A century of research on environmental carcinogens: From legacy to emerging pollutants. II TOXRUN International Congress. Toxicology Research Unit – CESPU, Porto (Portugal), Abril de 2023.
2. COSTA, P.M. (2023). Novel tools and old problems: Where do we stand after a century of research into environmental carcinogens? Ciclo de palestras do Doutoramento em Biociências. Universidade de Córdoba (Espanha), Janeiro de 2023.
3. 09/2023 - BeONE project: outcomes and impact. One Health EJP final meeting at the Ministry of Health (Paris, França)
4. 03/2023 - ReporTree: a surveillance-oriented tool to strengthen the linkage between pathogen genetic clusters and epidemiological data. OHEJP Dissemination Webinars: New Tools for Surveillance and Risk Assessment
5. 08/2023 - ReporTree: a surveillance-oriented tool to strengthen the linkage between pathogen genetic clusters and epidemiological data. Annual Meeting of the National Reference Center for Genomic Sequencing and Bioinformatics, Italy. Hosted by the Istituto Zooprofilattico Sperimentale dell'Abruzzo e del Molise "Giuseppe Caporale" (IZSAM). Teramo, Italy. November 8-9, 2023.
6. 08/2023 - INSaFLU-TELEVIR: an open web-based bioinformatics suite for viral metagenomic detection and routine genomic surveillance. Annual Meeting of the National Reference Center for Genomic Sequencing and Bioinformatics, Italy. Hosted by the Istituto Zooprofilattico Sperimentale dell'Abruzzo e del Molise "Giuseppe Caporale" (IZSAM). Teramo, Italy. November 8-9, 2023.
7. Mendes, Sofia L.; Sousa Santos, Carla; Feulner, Philine G. D.; Sousa, Vitor C. (2023) Contrasting outcomes of hybridization in Iberian chubs revealed through whole genome data. XIX ENBE Annual Meeting of the Portuguese Association for Evolutionary Biology, Lisboa Portugal
8. Blanckaert, A; Sousa, VC (2023) Interactions between mechanisms of reproductive isolation. XIX ENBE Annual Meeting of the Portuguese Association for Evolutionary Biology, Lisboa Portugal
9. Cecília Roque Conference Oral - Nature Inspired Solutions in Health Biotechnology 2023-12-09 Microbiotec 2023, 7th-9th December 2023, Covilhã, Portugal
10. Arménio Barbosa Conference Oral - A Molecular Modeling Perspective on the development of Synthetic Affinity ligands 2023-12-09 Microbiotec 2023, 7th-9th December 2023, Covilhã, Portugal
11. Cecília Roque Conference Oral - A scalable method to purify reflectins from inclusion bodies 2023-11-08 ISPPP 2023, 5th-8th November 2023, Viena, Austria
12. Margaria Dias Conference Oral - Reflectin-derived protopeptide: solvent modulation to promote different supramolecular assembly and materials. 2023-06-07 Affinity 2023, 5th - 7th June 2023, Lisbon, Portugal
13. Iana Lychko Conference Oral - Characterization of dynamic self-assembly of reflectins 2023-06-07 Affinity 2023, 5th -7th June 2023, Lisbon, Portugal
14. Gonçalo Teixeira Conference Oral - Odorant-binding proteins based sensors for Volatile Organic Compounds detection. 2023-06-07 Affinity 2023, 5th -7th June 2023, Lisbon, Portugal Young Investigator Award
15. Carlos Costa Conference Oral - Portugal Affinity reagents towards SARS-CoV-2. 2023-06-07 Affinity 2023, 5th -7th June 2023, Lisbon, Portugal

16. Cátia Soares Conference Oral - Portugal Dynamic Self-Assembly characterization of reflectins. 2023-06-02 Biophysics Festival, 1st-2nd June 2023, Porto, Portugal
17. Arménio Barbosa Conference Oral - Multiscale Modeling in Biophysics: Navigating techniques for optimal application, Biophysics Festival 2023, 1st-2nd June 2023, Porto, Portugal
18. Carvalho Leonardo, I., Alberti, A., Denoeud, F., Barreto Crespo, M. T., Capelo, J., & Bustos Gaspar, F. (2023). The complete plastome of *Centaurium erythraea* subsp. *Majus* (Hoffmanns. & Link) M.Laínz (Gentianaceae), the first chloroplast genome belonging to the *Centaurium* genus. *Mitochondrial DNA Part B*, 8(1), 86–90.  
<https://doi.org/10.1080/23802359.2022.2160670>
19. Carvalho Leonardo, I., Alberti, A., Denoeud, F., Barreto Crespo, M. T., Capelo, J., & Bustos Gaspar, F. (2023). The complete plastome of *Glandora prostrata* subsp. *Lusitanica* (Samp.) D.C.Thomas (Boraginaceae), the first chloroplast genome belonging to the *Glandora* genus. *Mitochondrial DNA Part B*, 8(2), 270–273.  
<https://doi.org/10.1080/23802359.2023.2175976>
20. Madeira C [presenter & corresponding] et al. (2023) Multilayer molecular networks in fish adaptation to labile environments. EcoSummit 2023 - Building a sustainable and desirable future - adapting to a changing land and seascape, 13th-17th June, Gold Coast, Australia
21. Pedro R. Figueiredo, Ricardo D. González, and Alexandra T. P. Carvalho. 'Combining Drugs and Polymers for an in situ Prodrug Activation', 6th Symposium in Medicinal Chemistry (University of Minho, 15th June 2023).
22. Combination of Biomolecular Simulations with Experimental Studies for More Efficient Drug Discovery, 6th Symposium on Medicinal Chemistry of University of Minho: Drug Discovery in the 21st Century 2023/06/15 - (University of Minho, Portugal), Sérgio F. Sousa
23. Combining multi-level biomolecular simulations with experimental data for drug discovery 8th PYChemM - Portuguese Young Chemists Meeting, 2023/05/17 - (Vila Real, Portugal) (Invited Keynote), Sérgio F. Sousa
24. Use of QM/MM Methods in Dissecting the Role Played by Different Amino Acid Residues in the Catalytic Mechanism of Plastic PET degrading Enzymes, 5th Conference on Theory and Application of Computational Chemistry, 2023/09/08 (Sapporo, Japan), Sérgio F. Sousa
25. Development of Biomolecular Simulation Protocols for Protein Recognition by DNA/RNA Sequences, Affinity2023 - 25th Meeting of the International Society of Molecular Recognition, 2023/05/07 (Lisbon, Portugal), Sérgio F. Sousa
26. Use of DFT in the Study of Enzymatic Reaction Mechanisms, DFT@PT Meeting, 2023/05/25 (Coimbra, Portugal), Sérgio F. Sousa
27. Application of QM/MM Methods to Understand the Role Played by Different Amino Acid Residues in the Catalytic Mechanism of Plastic PET degrading Enzymes, 5th Manchester Multiscale Conference - CCPBioSim, 2023/04/03 - (Manchester, UK), Sérgio F. Sousa
28. Use of Biomolecular Simulations to Understand and Engineer Aptamer Recognition for Biomedical Applications 9th international Oxford conference on antisense and therapeutic nucleic acids, 2023/03/27 - (Oxford, UK), Sérgio F. Sousa
29. Application of QM/MM Methods in the Study of the Catalytic Mechanism of Enzymes for Industrial Application, Quitel2023 - Montevideo, Uruguay - November 2023, Sérgio F. Sousa

30. Rodrigues, F.E.P., Darbre, T., Machuqueiro, M.: "An in-silico study on the pH-dependent structure of cationic peptide dendrimers and their potential as vectors for siRNA", Protein Electrostatics 2023, Genoa, IT. 26-29 June 2023 (Oral)
31. Advancements in the LouMu Project – Muography for Geological Surveys, Jornadas ICT 2023, 2023-02-02, Universidade do Minho, Braga, Pedro Teixeira
32. Avanços no Projeto LouMu – Muografia para Levantamentos Geofísicos, 12º Simpósio de Meteorologia e Geofísica da APMG, 2023-03-20, IPMA, Lisboa, Pedro Teixeira
33. Studying the origin of the elements with radioactive ion beams at ISOLDE/CERN, Jornadas Doutorais do Departamento de Física 2023, 2023-03-30, Lisboa, Faculdade de Ciências da Faculdade de Lisboa, Francisco Barba
34. ATLAS Upgrade, 4th Workshop LIP-IGFAE 2023 Biblioteca Nacional, 2023-04-14, Lisboa, Helena Santos
35. ChatGPT: desafios e oportunidades na ótica da comunicação de ciência, III Jornadas de Comunicação de Ciência da Universidade do Minho, 2023-04-29, online, Nuno Castro
36. Manifesto para a ciência em Portugal: actualidade e ideias para o futuro (debate), 2023-05-16, Lisbon, Braga, Coimbra, Portugal, Joana Gonçalves-Sá
37. O LIP e o CERN, Seminário Engenharia e Políticas Públicas FEUP, 2023-06-15, U.Porto, Porto, Mário Pimenta
38. A novel neutron detection technology based on timing RPCs, 5th Doctoral Congress in Engineering, 15-16 June, 2023, University of Porto Faculdade de Engenharia, Universidade do Porto, Giorgio Canezin
39. Anomaly Detection at ATLAS, ATLAS-PT, 2023-06-19, Coimbra, Inês Pinto
40. TileCal ageing and calibration, ATLAS-PT, 2023-06-19, Coimbra, Beatriz Pinheiro Pereira
41. R&D of the scintillator materials, ATLAS-PT meeting, 2023-06-19, Coimbra, Rudnei Machado
42. Monotop searches and new Physics search with AFP, ATLAS-PT Meeting, 2023-06-19, Universidade de Coimbra, Maura Teixeira
43. Anomaly Detection at ATLAS, ATLAS-PT meeting, 2023-06-19, Coimbra, Inês Pinto
44. B-tagging in HI collisions, ATLAS-PT meeting, 2023-06-19, Coimbra, João Pedro Pires
45. HGTD Interlock, ATLAS-PT meeting, 2023-06-19, Coimbra, Helena Santos
46. TileCal DCS Report, ATLAS-PT meeting, 2023-06-19, Coimbra Portugal, Filipe Martins
47. Repositório Pólen, Integrações, Jornadas FCCN 2023, 2023-06-27 Escola Naval, Portugal, Zacarias Benta
48. Computing and Data Projects on digital Twins, Jornadas FCCN 2023, 2023-06-28, Escola Naval, Portugal, Jorge Gomes
49. Advancing the Portuguese Scientific Community with INCD and Google Cloud, Jornadas FCCN 2023, 2023-06-29, Escola Naval, Alfeite, Jorge Gomes
50. INCD - Overview of the activities in 2022, Ciência 2023, 2023-07-07, Aveiro, Portugal, Jorge Gomes
51. INCD - Infraestrutura Nacional de Computação Distribuída, Ciência 2023, 2023-07-07, Universidade de Aveiro, Portugal, Jorge Gomes
52. Searching for dark matter with the ATLAS detector using unconventional signatures, MAPFis Conference, 2023-07-24, Online, Maura Teixeira
53. TGF and High-energy astrophysics Observatory for gamma-Rays on board the Space Rider (THOR-SR), XXXIII ENNA Encontro Nacional de Astronomia e Astrofísica, 2023-09-07,

Coimbra, Portugal, Rui Curado Silva

54. An effective and predictive model for the long-term variations of Cosmic Rays in the Heliosphere, 109<sup>o</sup> Congresso Nazionale, Società Italiana di Fisica, 2023-09-14, University of Salerno, Italy
55. Round Table: The Importance and Opportunity of Advanced Computing Infrastructures for Research and Innovation, UT Austin Portugal Program Annual Conference 2023, 2023-10-24, Braga, INL, Nuno Castro
56. Dados, análise e políticas: um novo sistema de vigilância epidemiológica, IV Congresso Nacional dos Médicos de Saúde Pública, 2023-10-26, Viseu, Portugal, Joana Gonçalves-Sá
57. A Importância das Competências Digitais na Inteligência Artificial (roundtable), INCoDe.2030: Fórum das Competências Digitais, 2023-10-30, Porto, Portugal, Joana Gonçalves-Sá
58. Infraestrutura Nacional de Computação Distribuída Novo Centro Operacional na UTAD, Encontro RNCA 2023, 2023-11-07, Universidade de Trás os Montes e Alto Douro, Vila Real, Portugal, Jorge Gomes
59. Science in the Machine Era, Development in Action - Inspiring Embryonic Minds, 2023-11-10, Faculdade de Ciências, UL, Lisbon, Portugal, Joana Gonçalves-Sá
60. Zapping projeto POLEN da FCT-FCCN, 10.<sup>o</sup> Fórum de Gestão de Dados de Investigação, 2023-11-15, Politécnico de Setúbal, Zacarias Benta
61. Searching for dark matter with the ATLAS detector using unconventional signatures, MAPFis PhD Students Assessment, 2023-12-06, Universidade do Minho, Maura Teixeira
62. O projeto AgriSpace, Copernicus para a Floresta e Agricultura em Portugal, 2023-12-19, Direção Geral do Território, João Pina

# Proceeding in international conferences

1. An Earlier Experiences Towards Optimizing Apache Spark Over Frontera Supercomputer.
  - Bernardo, S., Ruhela, A., Cazes, J., Harrell, S.L., Gomes, J.,
  - High Performance Computing. ISC High Performance 2023. Lecture Notes in Computer Science, vol 13999. Springer, Cham.
  - DOI: 10.1007/978-3-031-40843-4\_29
2. Prospects for VHE monitoring of Gamma-ray Bursts with SWGO
  - G. La Mura, U. Barres de Almeida, R. Conceição, A. de Angelis, F. Longo, M. Pimenta, E. Prandini, E. Ruiz-Velasco, B. Tomé, for the SWGO Collaboration
  - Proceedings of the Sixteenth Marcel Grossmann Meeting, World Scientific
  - DOI: 10.1142/9789811269776\_0246
3. Very high energy sky monitoring with the Southern Wide-field Gamma-ray Observatory
  - G. La Mura, U. Barres de Almeida and F. Longo
  - J. Phys.: Conf. Ser. 2429 012022, 12th Cosmic Ray International Seminar - CRIS 2022
  - DOI: 10.1088/1742-6596/2429/1/012022

4. Very high energy sky monitoring with the Southern Widefield Gamma-ray Observatory
  - Giovanni La Mura, Ulisses Barres de Almeida and Francesco Longo
  - EPJ Web of Conferences 280, 01007 (2023), EPJ Web Conf. Volume 280, 2023, RICAP-22, 8th Roma International Conference on Astroparticle Physics
  - DOI: 10.1051/epjconf/202328001007
5. Study of the  $^{12}\text{C}+^{16}\text{O}$  fusion reaction in carbon burning via the Trojan Horse Method
  - A. A. Oliva, A. Tumino, N. Soic, et al.
  - EPJ Web of Conferences 279, 11015 (2023)
  - DOI: 10.1051/epjconf/202327911015
6. Coulomb dissociation of  $^{16}\text{O}$  into  $4\text{He}$  and  $^{12}\text{C}$ 
  - L. T. Bott, K. Goebel, M. Heil, et al.
  - EPJ Web of Conferences 279, 04003 (2023)
  - DOI: 10.1051/epjconf/202327904003
7. Monitoring of Solar Energetic Particles and Cosmic Rays with the RADEM instrument onboard the ESA JUICE mission
  - Patricia Gonçalves, Wojtek Hajdas, Marco Pinto, Andre Galli, and Olivier Witasse
  - EGU General Assembly 2023 Vienna, Austria, 24–28 Apr 2023, EGU23-14711
  - DOI: 10.5194/egusphere-egu23-14711
8. Signature of Accidental Symmetry Breaking in Two-particle Correlations within the CGC
  - Anderson Kendi Kohara, Cyrille Marquet, Victor Vila
  - Acta Phys.Polon.Supp. 16 (2023) 5, 25
  - DOI: 10.5506/APhysPolBSupp.16.5-A25
9. Experimental study of high-energy fission and quasi-fission dynamics with fusion-induced fission reactions at VAMOS++
  - D. Fernández, M. Caamaño, D. Ramos, et al.
  - EPJ Web of Conferences 284, 04009 (2023)
  - DOI: 10.1051/epjconf/202328404009
10. Higgs Physics at a Muon Collider with detailed detector simulation
  - G. Da Molin et al.
  - PoS ICHEP2022 (2022) 515
  - <https://pos.sissa.it/414/515>
11. Resistive plate chambers for precise measurement of high-momentum protons in short range correlations at R3B
  - M. Xarepe, T. Aumann, A. Blanco, et al.
  - Nucl. Instr. and Methods A 1055, 168445 (2023)
  - DOI: 10.1016/j.nima.2023.168445
12. LOOKING FORWARD: PHOTON-INDUCED PROCESSES WITH TAGGED PROTONS AT THE CMS EXPERIMENT
  - Michele Gallinaro
  - Acta Phys. Pol. B-Proc. Suppl. 16 (2023) 5-A12
  - DOI: 10.5506/APhysPolBSupp.16.5-A12
13. Comprehensive investigation of fission yields by using spallation- and (p,2p)induced fission reactions in inverse kinematics
  - J.L. Rodríguez Sánchez, A. Graña-González, J. Benlliure, et al.
  - EPJ WEB CONF 284 (2023) 04020

- DOI: 10.1051/epjconf/202328404020
14. Sibyll "star" : ad-hoc modifications for an improved description of muon data in extensive air showers
    - Felix Riehn, Ralph Engel, Anatoli Fedynitch
    - PoS ICRC2023 (2023) 429 - Proceedings of the 38th International Cosmic Ray Conference (ICRC2023)
    - DOI: 10.22323/1.444.0429
  15. Gamma/hadron discrimination at PeV energies through the azimuthal fluctuations of air shower footprint at the ground
    - A. Bakalová, R. Conceição, L. Gibilisco, V. Novotný, M. Pimenta, B. Tomé, J. Vícha
    - PoS ICRC2023 (2023) 964, Proceedings of the 38th International Cosmic Ray Conference (ICRC2023)
    - DOI: 10.22323/1.444.0964
  16. The muon measurements of Haverah Park and their connection to the muon puzzle
    - L. Cazon, H.P. Dembinski, G. Parente, F. Riehn, A.A. Watson
    - PoS ICRC2023 (2023) 431 - Proceedings of the 38th International Cosmic Ray Conference (ICRC2023)
    - DOI: 10.22323/1.444.0431
  17. Study of b- and c-jets identification for Higgs coupling measurements at the Muon Collider
    - G. Da Molin
    - Nuovo Cim. C-Colloq. Commun. Phys. 46 (2023) 92
    - DOI: 10.1393/ncc/i2023-23092-y
  18. Accessing the forward region of the energy spectrum of leading neutral pions in ultra-high energy proton-air interactions
    - M.A. Martins, L. Cazon, R. Conceição and F. Riehn
    - PoS ICRC2023 (2023) 448 - Proceedings of the 38th International Cosmic Ray Conference (ICRC2023)
    - DOI: 10.22323/1.444.0448
  19. A novel method to search for point sources of ultra-high energy neutral particles using spacetime information
    - M.A. Martins, L. Cazon,, R. Conceição,, J. Alvarez-Muñiz, and E. Zas
    - PoS ICRC2023 (2023) 451 - Proceedings of the 38th International Cosmic Ray Conference (ICRC2023)
    - DOI: 10.22323/1.444.0451
  20. The Mercedes water-Cherenkov detector: a multi-PMT shallow tank design proposal for ground-based gamma-ray observatories
    - Ulisses Barres de Almeida, Pedro Assis, Pedro Brogueira, Ruben Conceição, Luis M. Domingues Mendes, Guilherme F. Franco, Lucio Gibilisco, Borja S. González, Luis F. Mendes, Mario Pimenta, Gizele L.P. Santos and Bernardo Tomé for the SWGO collaboration
    - Proceedings of the 38th International Cosmic Ray Conference, PoS ICRC2023 (2023) 601
    - DOI: 10.22323/1.444.0601
  21. Muon tomography with Resistive Plate Chambers for geological characterization
    - R. Sarmiento et al.

- Nuclear Inst. and Methods in Physics Research, A 1060 (2024) 169031
- DOI: 10.1016/j.nima.2023.169031

# Posters (international meetings)

1. MOUTINHO CABRAL, I., MISSIONÁRIO, M., NUNES, M., MENDONÇA, V., FERNANDES, J., TRAVESSO, M., VINAGRE, C., MADEIRA, D., GROSSO, A.R., COSTA, P.M. & MADEIRA, C. (2023) How ocean warming is modulating marine host-parasite dynamics in the Anthropocene: Evidence for higher parasite incidence and effects in non-warm adapted intertidal fish population. EcoSummit 2023, Gold Coast (Austrália), Junho de 2023.
2. MADEIRA, C., MISSIONÁRIO, M., ALMEIDA, C., MOUTINHO CABRAL, I., NUNES, M., FERNANDES, J.F., TRAVESSO, M., ANTÓNIO, C., RODRIGUES, A.M., MENDONÇA, V., VINAGRE, C., GROSSO, A.R., COSTA, P.M., MADEIRA, D. (2023) Molecular and phenotypic plasticity of temperate gobies in response to ocean warming and marine heatwaves. Ciência 2023 - Encontro com a Ciência e Tecnologia em Portugal: Ciência e Oceano para Além do Horizonte.
3. GONÇALVES C, MOUTINHO CABRAL I, RODRIGO AP, MADEIRA C, ALVES DE MATOS AP, GROSSO AR & COSTA PM (2023) Uncovering the potential of Cephalopoda and Polychaeta toxins for drug discovery. Ciência 2023 - Encontro com a Ciência e Tecnologia em Portugal: Ciência e Oceano para Além do Horizonte.
4. "Alpha-synuclein Structural Dynamics from Molecular Dynamics Simulations" at the BioISI Ciências Research and Innovation Week 2023;
5. "Wild Type and Mutated  $\alpha$ -synucleins' Structure from Coarse-Grained Molecular Dynamics Simulations" at the 2023 Coimbra 3D-Bioinfo-PT;
6. Mixão, Verónica; Pinto, Miguel; Sobral, Daniel; Di Pasquale, Adriano; Gomes, João Paulo; Borges, Vitor. "ReporTree: a surveillance-oriented tool to strengthen the linkage between pathogen genetic clusters and epidemiological data". Applied Bioinformatics & Public Health Microbiology 2023
7. Dourado Santos J, Sobral D, Pinheiro M, Isidro J, Bogaardt C, Pinto M, Prada JM, Horton DL, Gomes JP, TELEVIR Consortium, Borges V, INSaFLU-TELEVIR: an open web-based bioinformatics suite for viral metagenomic detection and routine genomic surveillance. Applied Bioinformatics & Public Health Microbiology 2023
8. Sofia L. Mendes, Carla Sousa Santos, Philine G. D. Feulner, Vitor C. Sousa Multiple outcomes of hybridization in Iberian chubs inferred from whole genome data, 23-27 July 2023, Ferrara, Italy
9. M. Furtado, I. Custódio, T. Pinheiro, R.C. da Silva, L.C. Alves, V. Corregidor, Artificial Neural Networks for high-resolution 3D imaging, ICNMTA 2022 Conference, September 11-16 (2022)
10. V. Corregidor, L.C. Alves, T. Pinheiro, R.C. da Silva, M. Furtado, Artificial Neural Networks and Ion Beams for 3D Imaging, International Conference on Accelerators for Research and Sustainable Development, IAEA, May 23-27 (2022)
11. Iana Lychko Conference Poster Optimized production of reflectins and characterization of their reversible self-assembly 2023-12-09 PROTEIOS Microbiotec 2023, 7th-9th December

2023, Covilhã, Portugal

12. Arménio Barbosa Meeting Poster Modeling studies of reflectin de novo peptide assembly 2023-04-05 5th National Physical Chemistry Meeting (15ENQF) and 4th Computational Chemistry Symposium, 4-5th April, 2023, Portugal
13. Madeira C, Missionário M, Almeida C, Cabral IM, et al. (2023) Molecular and phenotypic plasticity of temperate gobies in response to ocean warming and marine heatwaves. Ciência 2023 - Encontro com a Ciência e Tecnologia em Portugal: Ciência e Oceano para Além do Horizonte, 5th-7th July, Aveiro, Portugal
14. Cabral IM, Missionário M, Nunes M, [...], Madeira C. (2023) How ocean warming is modulating marine host-parasite dynamics in the Anthropocene: Evidence for higher parasite incidence and effects in non-warm adapted intertidal fish population. EcoSummit 2023 - Building a sustainable and desirable future: adapting to a changing land and seascape. 13th-17th June, Gold Coast, Australia
15. • M. Furtado, I. Custódio, T. Pinheiro, R.C. da Silva, L.C. Alves, V. Corregidor, Artificial Neural Networks for high-resolution 3D imaging, ICNMTA 2022 Conference, September 11-16 (2022)
16. V. Corregidor, L.C. Alves, T. Pinheiro, R.C. da Silva, M. Furtado, Artificial Neural Networks and Ion Beams for 3D Imaging, International Conference on Accelerators for Research and Sustainable Development, IAEA, May 23-27 (2022)
17. 2nd Annual Meeting of CIBIT: "Deciphering emotions in the human brain - a functional MRI exploration of music-induced emotions and their potential applications"; Alexandre Sayal, Inês Bernardino, Teresa Sousa, Miguel Castelo-Branco, Bruno Direito (2023)
18. Luís Mendes, Gas Regeneration System for RPCs, LISHEP2023, UERJ, Rio de Janeiro, Brasil 2023-03-06
19. Nuno Leonardo, New Era in Neutrino Physics at Colliders: construction and physics of SND@LHC experiment, LISHEP 2023, Rio de Janeiro, 2023-03-07
20. Ricardo Silva, Improving opacity predictions through optimization of atomic data calculations, Atomic Processes in Plasmas (APIP) 2023, Vienna, Austria, 2023-05-16
21. Ricardo Barrué, The ATLAS Trigger System, 11th Large Hadron Collider Physics Conference 2023, Belgrade, Serbia, 2023-05-23
22. Nuno Fernandes, ATLAS Trigger and Data Acquisition Upgrades for the High-Luminosity LHC, 11th Large Hadron Collider Physics Conference 2023, Belgrade, Serbia, 2023-05-23
23. Joana Antunes, Impact of Physical Parameters on GBM Survival Curves in Enhanced Radiotherapy with Gold Nanoparticles, 61th Annual Particle Therapy Co-Operative Group conference (PTCOG 61), Madrid, Spain, 2023-06-15
24. Maria Giorgi, Proton minibeam radiation therapy for cardiac radioablation: A proof of concept, 61th Annual Particle Therapy Co-Operative Group conference (PTCOG 61), Madrid, Spain, 2023-06-15
25. Miguel Molina-Hernández, Radiolysis modeling of FLASH during a continuous beam irradiation, 61th Annual Particle Therapy Co-Operative Group conference (PTCOG 61), Madrid, Spain, 2023-06-15
26. Joana Leitão, Proton Multi-Beam FLASH Radiotherapy: Combining FLAH and IMPT Applied to Meningioma Case, 61th Annual Particle Therapy Co-Operative Group conference (PTCOG 61), Madrid, Spain, 2023-06-15

27. Ricardo Silva, An Atomic Data Optimization Method For Improved Kilonova Opacity Modeling, International Colloquium On Atomic Spectra And Oscillator Strengths For Astrophysical And Laboratory Plasmas (ASOS14), Paris, France, 2023-07-10
28. Joana Gonçalves-Sá, Understanding COVID-19 pandemic trajectories: why changes in online behavior matter for now-casting, NetSci2023: International School and Conference on Network Science, Vienna, Austria, 2023-07-12
29. Pedro Canatário Duarte, The diffusion of information in social media – How complex is it?, NetSci2023: International School and Conference on Network Science, Vienna, Austria, 2023-07-14
30. Ana Luísa Carvalho, The ATLAS trigger system during Run 3, Lepton Photon Conference, Melbourne, Australia, 2023-07-17
31. Felix Riehn, The muon measurements of Haverah Park and their connection to the muon puzzle, 38th International Cosmic Ray Conference (ICRC2023) - The Astroparticle Physics Conference, Nagoya, Japan and Online, 2023-07-27
32. André Torcato, Heavy baryon spectroscopy in a quark-diquark approach, 25th European conference on few-body problems in physics (EFB25), Mainz, Germany, 2023-07-30
33. Miguel Martins, Accessing the forward region of the energy spectrum of leading neutral pions in ultra-high energy proton-air interactions, The Astroparticle Physics Conference, ICRC 2023, Nagoya, Japan and Online, 2023-08-01
34. Miguel Martins, A novel method to search for point sources of ultra-high energy neutral particles using spacetime information, The Astroparticle Physics Conference, ICRC 2023, Nagoya, Japan and Online, 2023-08-03
35. Maura Teixeira, ATLAS Forward Proton Detector as a Tool for New Physics Searches, poster presentation at European School of High Energy Physics, Grenaa, Denmark 2023-09-11
36. Patrícia Gonçalves, The Radiation Monitor onboard JUICE, Science opportunities during cruise Heliophysics in Europe, ESTEC, ESA, Noordwijk, The Netherlands, 2023-11-01
37. BRAVER challenges students in radiation protection training in an international training, Higher Education with Impact Conference, Hasselt, Belgium, 2023-12-13
38. CHERNE, an adaptative network focused on students, Higher Education with Impact Conference, Hasselt, Belgium, 2023-12-15

## Posters (national meetings)

1. Rodrigues, F.E.P., Darbre, T., Machuqueiro, M.: “In silico study of cationic peptide dendrimers as pH-dependent vectors for siRNA”, 3D-BIOINFO-PT Annual Meeting, Coimbra, Portugal, Dez. 2023. (Poster)
2. Rodrigues, F.E.P., Darbre, T., Machuqueiro, M.: “Investigating the pH-Dependent Structure of Cationic Peptide Dendrimers and Their Potential as siRNA Vectors: An In-Silico Study”, 3rd Chem & Biochem Students Meeting, FCUL, Lisboa, Portugal, July 13, 2023. (Poster)
3. Ricardo Silva, Improved Opacity Predictions of r-process Elements, Jornadas Doutorais do Departamento de Física 2023 Lisboa, Faculdade de Ciências da Faculdade de Lisboa, 2023-03-30

4. Tomás Correia Sousa, CALIFA calibration with cosmic muons, Doctoral Congress of Engineering 2023, Faculdade de Engenharia da Universidade do Porto, 2023-06-16

# Thesis / Dissertation

## PhD Thesis

### Finished

1. Dr. Gonçalo Teixeira, "Olfaction inspired sensing using tailor-made proteins" , MIT Portugal Program of Bioengineering Systems, FCT NOVA, December 2023.
2. Cereja, R. (2023). Phytoplankton in estuarine waters: assessment of temporal and spatial variability. Doutoramento Earthsystems, Faculdade de Ciências, Universidade de Lisboa.
3. Rational development of new biocatalysts for the production of Parkinson Disease drugs  
Student: Juliana Rocha Programa Doutoral em Biomedicina (PhD) Universidade do Porto Faculdade de Medicina, Portugal 2018 - 2023 Defense: July 25 2023
4. IST Miguel Orcinha Study of solar modulation effects on cosmic ray fluxes measured by the AMS experiment
5. ATLAS, Pheno UC Susana Santos Study of the ttH production and Higgs couplings to Top quarks in the ATLAS experiment
6. UC Alexandre Fonseca Trindade Study of noble gases mixtures characteristics as a detection medium
7. DarkMatter UC Guilherme Pereira Data processing and Human Machine Interface for the monitoring and control system of LZ dark matter experiment
8. FCUL Elisabet Galiana Analysis and simulation of (p,g) and PIGE low energy reactions: An ENSARRoot developmen
9. IST Diogo de Bastos Search for the supersymmetric stop quark in the CMS experiment
10. FCUL Dalila Mateus Estudos dosimétricos para SBRT/SRT de pequenas lesões do Cérebro
11. IST Ana Luísa Carvalho Study of the CP properties of the Higgs coupling to top quarks with ATLAS at the LHC.

### Ongoing

1. Jorge Filipe Marques Gadelho
  - Título: Hydrodynamic Analysis of Oscillating Water Column Wave Energy Converters using OpenFOAM
  - Universidade: Instituto Superior Técnico - Universidade de Lisboa Cabral, C. (ongoing). Assessment of impacts of marine non-indigenous species. Doutoramento em Ciências do Mar, da Faculdade de Ciências, Universidade de Lisboa.
2. Carvalho, F. (ongoing). Changes in Ecosystem Services with the introduction of marine invasive species. Doutoramento em Ciências do Mar, da Faculdade de Ciências,

Universidade de Lisboa.

3. Afonso, I. (ongoing). Fouling marine non indigenous species at different biogeographical levels. Doutoramento em Ciências do Mar, da Faculdade de Ciências, Universidade de Lisboa.
4. Goulding, T. (ongoing). The Portuguese clam fishery: Future impact of Hybrids and Ocean Acidification to coastal communities. Doutoramento em Ciências do Mar, da Faculdade de Ciências, Universidade de Lisboa.
5. Pereira, E. (ongoing). Dinâmica da migração catádroma do muge (*Liza ramada* Risso, 1827) e sua importância para os ecossistemas fluviais. Doutoramento em Biologia, Universidade de Évora
6. Belo, A.F. (ongoing). Contribuição para o conhecimento da biologia e ecologia do sável em Portugal: impacto do restauro fluvial e da gestão participada na sua conservação. Doutoramento em Biologia, Universidade de Évora.
7. Silva, A.F. (ongoing). Avaliação da adequabilidade do desenho e dimensionamento de uma Área Marinha Protegida com vista à gestão de recursos pesqueiros. Doutoramento em Ciências do Mar, da Faculdade de Ciências, Universidade de Lisboa.
8. Monteiro, R. (ongoing). Assessment of anthropogenic impacts on the European Eel in Portugal. Doutoramento Earthsystems, Faculdade de Ciências, Universidade de Lisboa
9. Marques, J.P. (ongoing). Migrações da corvina-legítima: importância do estuário do Tejo como área de viveiro e de reprodução. Doutoramento em Ciências do Mar, da Faculdade de Ciências, Universidade de Lisboa.
10. Silva, S. (ongoing). Estudo das populações de truta (*Salmo trutta* L.) no limite sul de distribuição: implicações para a sua gestão e conservação. Doutoramento em Biologia, Universidade de Évora.
11. Rato, A. (ongoing). Gestão e conservação das espécies potamódromas: dinâmica de movimentos, fidelidade espacial e migrações parciais. Doutoramento em Biologia, Universidade de Évora.
12. Almeida, A.R. (ongoing). FRESHseaBASS - Divergent sea bass freshwater incursions. Doutoramento em Ciências do Mar, Faculdade de Ciências, Universidade de Lisboa. 1. Pedro R. Figueiredo. 'Enzymatic Synthesis of Biodegradable Amphiphilic Polymer-drugs for Cancer Treatment.'
13. Innovative approach to fight tuberculosis and malaria targeting the extraordinary PLP synthase macromolecular complex Student: André Pina Programa Doutoral em Biomedicina (PhD) Universidade do Porto Faculdade de Medicina, Portugal 2018 - 2023 Defense: January 15th 2024 1. Development of biocidal formulations for effective biofouling control Student: Susana Maria da Fonseca Fernandes (Supervisor Principal: Manuel Simões; Outros Supervisores: Fernanda Borges) Programa Doutoral em Engenharia Química e Biológica (PhD) Universidade do Porto Faculdade de Engenharia, Portugal 2019 - 2023 Defense: Feb 9th 2024
14. Ana Sofia Carvalho, FCT (PD/BD/135550/2018) Immune profiling of advanced-stage HER2+ breast cancer by scRNA-seq.
15. Matthew Cox Physics - University of Liverpool
16. Matteo Pisano IST
17. Ricardo Barrué IST
18. Duarte Guerreiro FCUL Doutoramento em Engenharia Física

19. Sara Mesquita UNL- NOVA
20. José Patuleia Venâncio IST DEFT
21. Borja González IST
22. Maura Teixeira UMinho
23. Joana Antunes FCUL Doutoramento em Engenharia Biomédica e B...
24. Beatriz Pinheiro Pereira IST PhD in Physics
25. Miguel Molina-Hernández IST
26. Raúl Torres IST
27. Luis Coelho UC
28. João Martins da Silva IST
29. João Arruda Gonçalves IST Doctoral Programme in Physics
30. Manuel Xarepe FCUL PhD. Engineering Physics
31. Rudnei Machado IST
32. João Saraiva UC
33. Mariana Brás IST
34. Lucio Gibilisco IST
35. Afonso Paixão Marques UC Engineering Physics
36. Carina Coelho FCUL
37. Joana Leitão IST
38. Luís Afonso UP
39. Esteban Chalbaud UC Doutoramento em Física
40. André Cordeiro IST
41. Nuno Fernandes IST Engineering Physics
42. Alexandra Fernandes UMinho
43. Guilherme Soares IST Doutoramento em Engenharia Física Tecnol...
44. Pedro Costa IST
45. Cristiana Rodrigues FCUL PhD in Biomedical and Biophysics Enginee...
46. Fernando Souza UMinho
47. Johan Wulff IST
48. Giacomo Da Molin IST
49. Dario Vaccaro IST
50. André Torcato IST
51. Ricardo Silva FCUL
52. Wallison Campanelli FCUL
53. Eduardo Ferreira UniGraz
54. Íris Damião IST
55. Giovanni Marozzo IST
56. Francisco Barba FCUL
57. Sandro Saltão UC Doutoramento em Física
58. Nuno Olavo IST Doutoramento Física
59. Henrique Legoinha IST
60. Kai Jenkins UC
61. Annalisa Berti UMinho
62. Cristiana Francisco UC
63. Beymar Surco UC

64. António Pessanha Gomes IST Doutoramento em Engenharia Física Tecnol...
65. Caroline Licour UBI
66. Rodrigo Capucha FCUL
67. Rui Fernandez IST
68. Francisca Afonso FCUL
69. Pedro Conceição UBI Engenharia Aeronáutica
70. Geraldo Rodrigues IST Mechanical Engineer
71. Joel Filho UC Engenharia Física
72. Daniel Vareta IST Mechanical Engineer

# Master Thesis

## Finished

1. João Pedro Correia Mourão Miranda (2023) Simulação Numérica de Ventilação Instacionária em Espaços Interiores, ISEP.
2. RODRIGO DE JESUS EUSÉBIO "Re-implementation of a data analysis pipeline for the genetic characterization of viral pathogens in the context of laboratory surveillance of viral outbreaks" Sep, 2023 Nova Medical School
3. Marta Ferreira (2023) Genomics of adaptation to cadmium on a spatially heterogeneous environment. MSc Biologia Evolutiva e do Desenvolvimento. Faculdade de Ciências da Universidade de Lisboa.
4. • Mestrado em Bioinformática - Universidade do Minho;
  - Aluna: Catarina Gomes Ferreira;
  - Orientadores: Isabel Duarte (UAlg) e Miguel Rocha (UMinho).
  - MitoProfiles: Cancer mitochondrial profiles in high metabolic rate organs"
5. Jorge Fernando Pereira Sinal: Beyond the Accuracy of Clinical Reasoning: The Development of a New Instrument. Msc Faculdade de Medicina de Lisboa
6. Ribeiro, A.R. 2022. Estudo da dinâmica de movimentos e comportamento migratório dos ecótipos anádromo e holobiótico de truta (*Salmo trutta* L.) no rio Mondego., Mestrado em Ecologia e Gestão Ambiental, Faculdade de Ciências, Universidade de Lisboa.78pp  
HYPERLINK "<http://hdl.handle.net/10451/56922>"<http://hdl.handle.net/10451/56922>
7. Development of computational approaches for the identification of bioactive molecules present in databases of cyanobacterial compounds for therapeutic approaches in human diseases Student: Renato Soares (Main Supervisor: Dr. João Carneiro, CIIMAR; Other Supervisors: Diogo Pratas, Univ Aveiro) Mestrado: Bioinformatics and Computational Biology Faculdade de Ciências da Universidade do Porto, Portugal Defense: July 24th 2023
8. Molecular Modelling of Natural Compounds Extracted from Plants as New Insecticide Agents Student: Maria Araújo Mestrado: Biofísica e Bionanosistemas Universidade do Minho, Portugal 2019/2022 Defense: April 23rd 2023
9. Understanding the Molecular Basis Behind Congenital Disorders of Glycosylation Student: Tiago André Cunha Oliveira Mestrado: Biochemistry of Health Escola Superior de Saúde, Instituto Politécnico do Porto, Portugal 2023 Defense: November22nd 2023

10. Uminho Céu Neiva Advanced machine learning techniques in rare events research at the Large Hadron Collider
11. FCUL João Afonso Jantarada Simulation of a p-process in a Supernova Explosion using the NucNet Tools framework. <http://hdl.handle.net/10451/56730>
12. UC Patrícia Ferreira Machine Learning for Anomaly Detection in the Atlas Trigger at the LHC
13. UC João Humberto Gomes Deep Learning in QCD Jets
14. UC Sandro Saltão Optimisation of the vertical separation of multiple scatter events in the LZ detector with applications in the sensitivity to the  $0\nu 2\beta$  decay of Xe-136
15. FCUL Catarina Pereira Performance of the TileCal High Voltage Upgrade System
16. FCUL Rui Fernandes Marques Controlo Digital e Nova Electrónica para o Banco de Testes para o Sistema de Alta Tensão dos Fotomultiplicadores do Tilecal
17. FCTUC António Sampaio Optimization of a device for deep-brain transcranial magnetic stimulation via simulations
18. FCUL Daniel Salgueiro Design of a fiber-phantom detector for quality assurance in PT
19. IST Henrique Legoinha Probing the Quark Gluon Plasma with B0s and B+ Mesons: Cross Sections in pp and Nuclear Modification Factors in PbPb Collisions  
<https://cds.cern.ch/record/2860807/>
20. FCUL Tomás Almeida Design of a phantom for radiobiology studies
21. Uminho Pedro Chaves Probing Dark Matter with Higgs Bosons and Top Quarks
22. FCUL Lia Pereira The effects of radiation on amyloids and cells experimentally and modeled using the TOPAS framework <http://hdl.handle.net/10451/59369>
23. UBI Lígia Lopes Lecionar através de métodos não convencionais: uma investigação sobre a abordagem lúdica no ensino
24. FCUL João Pedro Pires Deep Neural Networks in Experimental Data Analyses
25. 1. FCUL Tomás Correia Sousa Characterization of CsI(Tl) Crystals and Implementation of tools for the CALIFA calorimeter at FAIR <http://hdl.handle.net/10451/59068>
26. IST Pedro Canatário Duarte The diffusion of information in social media - How much complexity do we need?
27. IST Lénea Luís Deciphering jet quenching effects through a quantile ratio
28. UC Pedro Póvoa Combining HPC and Low-Power Systems for Data-Intensive-Acquisition Sensors in Space Missions
29. UC Francisco Santos Procura de fugas em redes de água
30. UC João Parente Development of Machine Learning Tools for the extraction of behavioral and physiological parameters of birds in their natural environment
31. UC Francisco Casalinho Probing the vacuum with di-Higgs production
32. UC Jorge Francisco Silva Transmission muon tomography using ultra-low gas consumption RPC technology
33. UC António Caramelo High Granularity Timing Detector's Patch Panel Filter Testing
34. FCTUC Giorgio Canezin A nRPC-4D neutron Detector Concept with Timing and Tridimensional Position Readout Capability
35. UC António Carvalho Fast algorithms of simulation of the positron-emitting activity generation for multi-beamlet proton therapy treatment plans
36. UC José Sousa Development of a High-Energy Astrophysics Tracker for the Space Rider Orbital Maiden Flight

37. IST António Pessanha Gomes Flight data analysis of the BERM radiation monitor aboard the BepiColombo mission to Mercury
38. IST Simão Costa Probing quark hadronization with B mesons at the LHC  
<http://cds.cern.ch/record/2883330?ln=en>
39. IST Rúben Inácio Exploiting Graph Neural Networks for jet identification in LHC experiments
40. Uminho Magda Duarte Development of high-resolution, three-dimensional muographies
41. IST Guilherme Rita de Almeida Acceleration of track reconstruction algorithms using GPUs
42. IST Marco Leitão "QGP effects on Energy Correlators inside jets"
43. IST Milton Freitas Measurement of the number of muons in high occupancy MARTA stations
44. FCUL Edgar Sousa Study of dosimetry techniques applied to electron beams with high dose rate
45. ISEL Maria João Borges Beam tests of a scintillation array detector for high-resolution dosimetry
46. FCUL Ana Campos Estudo da dispersão de partículas alfa em filmes finos
47. FCUL Nuno Taborda Construção de um protótipo para o estudo da exalação de radão por materiais de construção
48. FCUL Fábio do Carmo Cálculo de espectro de emissão de Auger para simulações de radioterapia sensibilizada com nanopartículas de ouro
49. UC Maria Miguel Interlock electronics for the high Granularity Timing Detector of the ATLAS

## Ongoing

1. 2023-present (main supervisor). David Lohmann - MSc in Computational Biology and Bioinformatics thesis: "Multi-omics approach to unravel phenotypic responses of tropical fish from the Eastern Tropical Pacific to ocean warming and acidification scenarios". NOVA School of Science and Technology, Portugal
2. 2023-present (co-supervisor). Raquel Maricato - MSc in Computational Biology and Bioinformatics thesis: "Evolution of the minimal stress proteome in marine fauna: potential for adaptation to climate change". NOVA School of Science and Technology, Portugal.
3. 2023-present (co-supervisor). João Lopes - MSc in Computational Biology and Bioinformatics thesis: "Multilayer molecular networks shaping goby fish physiological responses to marine heatwaves in intertidal habitats". NOVA School of Science and Technology, Portugal.

## Patents

## Datasets

1. Martins, C., Carvalho, L.M., Moutinho Cabral, I., Saúde, L., Dreij, K., Costa, P.M. A mechanistic study on the interaction effects between legacy and pollutants of emerging concern: A case study with B[a]P and diclofenac. Accession number GSE232729 (under publication embargo)
2. Gonçalves, C., Moutinho Cabral, I., Grosso, A.R, Costa, P.M. Transcriptome profiling of the posterior salivary gland of the cuttlefish *Sepia officinalis*. Accession number GSE251667 (under publication embargo)
3. Mixão, Verónica; Brendebach, Holger; Pinto, Miguel; Sobral, Daniel; Gomes, João Paulo; Deneke, Carlus; Tausch, Simon; Borges, Vítor. Genome assemblies and respective wg/cgMLST profiles of a diverse dataset comprising 3,076 *Campylobacter jejuni* isolates. <https://zenodo.org/record/7230105#.Y-ftji0qjQI>.
4. Mixão, Verónica; Brendebach, Holger; Pinto, Miguel; Sobral, Daniel; Gomes, João Paulo; Deneke, Carlus; Tausch, Simon; Borges, Vítor. Genome assemblies and respective wg/cgMLST profiles of a diverse dataset comprising 1,999 *Escherichia coli* isolates. <https://zenodo.org/record/7230102#.Y-fuTi0qjQI>.
5. Mixão, Verónica; Brendebach, Holger; Pinto, Miguel; Sobral, Daniel; Gomes, Joao Paulo; Deneke, Carlus; Tausch, Simon; Borges, Vítor. Genome assemblies and respective cgMLST profiles of a diverse dataset comprising 1,874 *Listeria monocytogenes* isolates. <https://zenodo.org/record/7230003#.Y-fvCC0qjQI>.
6. Mixão, Verónica; Brendebach, Holger; Pinto, Miguel; Sobral, Daniel; Gomes, João Paulo; Deneke, Carlus; Tausch, Simon; Borges, Vítor. Genome assemblies and respective wg/cgMLST profiles of a diverse dataset comprising 1,434 *Salmonella enterica* isolates. <https://zenodo.org/record/7230091#.Y-fvrC0qjQI>
7. Mixão, Verónica; Pinto, Miguel; Sobral, Daniel; Di Pasquale, Adriano; Gomes, João Paulo; Borges, Vítor. Multiple Sequence Alignment of a diverse dataset with 1788 *Mycobacterium tuberculosis* isolates. <https://zenodo.org/doi/10.5281/zenodo.7772651>

# Software Científico

1. MitoCarta, depositado no GitHub (<https://github.com/MitoProfiles/MitoCarta>)
2. Validation and benchmarking of ReporTree (a surveillance-oriented tool to strengthen the linkage between pathogen genetic clusters and epidemiological data) <https://github.com/insapathogenomics/ReporTree>
3. Development of INSaFLU TELE-VIR platform <https://github.com/INSaFLU/INSaFLU>
4. Development of INSaFLU Snakemake [https://github.com/INSaFLU/insaflu\\_snakemake](https://github.com/INSaFLU/insaflu_snakemake)

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Revision #36

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