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.08. Multiparticle production in proton-nucleus collisions beyond eikonal accuracy P. Agostini, T. Altinoluk, N. Armesto, F. Dominguez and J. G. Milhano Eur. Phys. J. C82 (2022) no.11, 1001 10.1140/epjc/s10052-022-10962-1
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.10. Heavy quarks and jets as probes of the QGP Liliana Apolinário, Michael Winn, Yen-Jie Lee Prog.Part.Nucl.Phys. 127 (2022) 103990 10.1016/j.ppnp.2022.103990
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.14. The SHiP experiment at the proposed CERN SPS Beam Dump Facility SHiP Collaboration Eur.Phys.J.C 82 (2022) 5, 486 https://doi.org/10.1140/epjc/s10052-022-10346-5

.15. Search for pair-production of vector-like quarks in pp collision events at s√=13 TeV with at least one leptonically decaying Z boson and a third-generation quark with the ATLAS detector N. Castro, T. Vale et al. (ATLAS Collaboration) PLB, arXiv:2210.15413
.16. 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 arXiv:2211.03233 10.48550/arXiv.2211.03233
.17. A source of very energetic oxygen located in Jupiter’s inner radiation belts Elias Roussos,Christina Cohen, Peter Kollmann, Marco Pinto, Norbert Krupp, Patricia Gonçalves, Konstantinos Dialynas Space Advances, Vol 8, Issue 2 DOI: 10.1126/sciadv.abm4234
.18. Validation of dMEREM, the Detailed Mars Energetic Radiation Environment Model, with RAD Data from the Surface of Mars Patricia Goncalves, Luisa Arruda, Marco Pinto Front. Astron. Space Sci. 9 (2022) 833144 10.3389/fspas.2022.833144
.19. Pioneering evaluation of GaN transistors in geostationary satellites Hugo Mostardinha, Diogo Matos, Nuno Borges Carvalho, Jorge Sampaio, Marco Pinto, Patricia Gonçalves, Tiago Sousa, Paul Kurpas, Joachim Wuerfl, Andrew Barnes, François Garat & Christian Poivey Sci Rep 12, 12886 (2022) https://doi.org/10.1038/s41598-022-17179-y
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.21. Tackling the muon identification in water Cherenkov detectors problem for the future Southern Wide-field Gamma-ray Observatory by means of Machine Learning B.S. González, R. Conceição, M. Pimenta, B. Tomé, A. Guillén Neural Computing & Applications 34, pages 5715–5728 (2022) https://doi.org/10.1007/s00521-021-06730-z
.22. P_{\gamma h}^{\alpha} A new variable for γ/h discrimination in large gamma-ray ground arrays R. Conceição, B.S. González, M. Pimenta, B. Tomé Phys.Lett.B 827 (2022) 136969 10.1016/j.physletb.2022.136969
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.25. Gamma/hadron discrimination at high energies through the azimuthal fluctuations of the particle distributions at ground R. Conceição, L. Gibilisco, M. Pimenta, B. Tomé JCAP 10 (2022) 086 https://doi.org/10.1088/1475-7516/2022/10/086
.26. Evaluation of the potential of a gamma-ray observatory to detect astrophysical neutrinos through inclined showers Jaime Alvarez-Muñiz, Ruben Conceição, Pedro J. Costa, Mário Pimenta, Bernardo Tomé Phys.Rev.D 106 (2022) 10, 102001 10.1103/PhysRevD.106.102001

Oral Presentations

1. Pedro R. Figueiredo, Ricardo D. González, and Alexandra T.P. Carvalho. Activation of Gemcitabine-Polyester Conjugates in Tumor Tissues. BEB Day 2023 - Science Challenges 2023.
2. Ricardo D. González, Pedro R. Figueiredo, and Alexandra T.P. Carvalho. Xenonucleic acids for advanced therapeutics. Virtual Winter School on Computational Chemistry 2022.
3. Pedro R. Figueiredo, Ricardo D. González, and Alexandra T.P. Carvalho. Catalytic Cycle of the Human Carboxylesterase 2. Virtual Winter School on Computational Chemistry 2022.
4. Pedro R. Figueiredo, Ricardo D. González, and Alexandra T.P. Carvalho. Hydrolysis of cocaine towards less toxic products: a QM/MM approach. BEB Day 2022 - The overview effect 2022.
5. Ricardo D. González, Pedro R. Figueiredo, and Alexandra T.P. Carvalho. Principal Component Analysis of the Human Carboxylesterase 2 Active Site Conformations. BEB Day 2022 - The overview effect 2022.
6. Beatriz C. Almeida, Jennifer Kaczmarek, Kristala L. Jones Prather and Alexandra T. P. Carvalho. Allosteric transcription factor: essential residues. 8th Annual CCPBioSim Conference - Frontiers in Biomolecular Simulation 2022.
7. COSTA, P.M. (2022). Marine Biotechnology: Applications in Sustainability and Medicine: prospects and tools for bioprospecting. VII Semana da Bioengenharia. Instituto Superior Técnico da Universidade de Lisboa, Lisboa (Portugal), March 2022 (invited speaker).
8. MARTINS, C., MOUTINHO CABRAL, I., CARVALHO, L.M., DE OLIVEIRA GALVÃO, M.F., SAÚDE, M.L., DREIJ, K., COSTA P.M. (2022). Molecular mechanisms behind the effects from interaction of carcinogens and emerging pollutants: in vivo and in vitro perspective. XVIth International Congress of Toxicology. Dutch Society of Toxicology, Maastricht (Netherlands), September 2022.
9. RODRIGO, A.P., GONÇALVES, C., MOUTINHO CABRAL, I., MARTINS, C., D'Ambrosio, M., MADEIRA, C., COSTA P.M. (2022). Advances in the bioprospecting for novel bioreactives from marine invertebrates: Multi-omics and computational strategies. International Conference for YOUNG Marine Researchers. University of Applied Sciences Bremerhaven, Bremerhaven (Germany), September 2022. (Invited speaker)
10. NUNES, M., MOUTINHO CABRAL, I., GONÇALVES, C., FERNANDES, J.F., MISSIONÁRIO, M., TRAVESSO, M., GROSSO, A.R., MADEIRA, D., COSTA P.M., MADEIRA, C. (2022). Goby fish populations in intertidal environments: gene networks and epigenetic regulators modulating energy metabolism in response to seasonal warming and local climate regimes. International Conference for YOUNG Marine Researchers. University of Applied Sciences Bremerhaven, Bremerhaven (Germany), September 2022.
11. MISSIONÁRIO, M. (2022). Marine shallow waters as climate change hotspots - multi-omics approaches unravel fish response patterns across latitudes, seasons and climate scenarios. UCIBIO BioSeminars. NOVA School of Science and Technology, NOVA University of Lisbon, Monte de Caparica (Portugal), December 2022.
12. Biomolecular Simulations in the Age of Information EUGLOH Research Conference "Global Health Challenges: Advances in E-Health” 2022/11/21 – (University of Lund, Sweden)

(online)
13. Simulações Computacionais da Descoberta de Fármacos: Conectando a Teoria à Prática IV Simpósio em Bioquímica Aplicada, Organized by the Students of the MSc in Applied Biochemistry, Univ Minho 2022/09/29 – (University of Minho, Portugal)
14. BioSIM - Application of Biomolecular Simulations in the Study of Biofilms Biofilms@UP – A Investigação em Biofilmes na Universidade do Porto 2022/09/15 – (University of Porto, Portugal)
15. herapy for Genetic Diseases: The Computer as a Tool to Address Genetic Variability VirCo 2022 Meeting “Understanding genetics: a key to a Healthier GENEration” organized by the Portuguese Pharmaceutical Students’ Association (APEF) and by the Croatian Pharmacy and Medical Biochemistry Students Association (CPSA) and that 2022/05/21 (online)
16. Employing Biomolecular Simulations for a Molecular Understanding of Human Diseases 2nd Workshop “From In Silico to Animal Models for the Study of Human Diseases” 2022/04/20 - University of Aveiro (Portugal)
17. QM/MM Methods and Protein Ligand Docking: Fundamentals and Applications Ciclo de Seminários, M.Sc. in Computational Biology 2022/04/07 - Invited by Prof. Irina Moreira (Univ Coimbra, Portugal)
18. Application of QM/MM Methods for Rational Enzyme Engineering of New Biocatalysts: Fighting the Three Demons Les Houches – TSRC Protein Dynamics CECAM Meeting 2022/05/23 – (Aussois, France)
19. Simulações Computacionais da Descoberta de Fármacos: Conectando a Teoria à Prática IV Simpósio em Bioquímica Aplicada, Organized by the Students of the MSc in Applied Biochemistry, Univ Minho 2022/09/29 – (University of Minho, Portugal)
20. 2022/10/27 Bioseparation and Materials - Introduction to affinity ligands Pure Winter School 2022 University of Bayreuth (Bayreuth, Germany)

Proceeding in international conferences

1. Title: Distal edge determination for a multi-slat prompt-gamma camera: Irradiation with a 200-MeV proton beam
   - date: 2022-02-11
   - Authors: H. Simões, A. Morozov, J. Silva, J. Teodoro, P. Crespo
2. Title: Understanding COVID-19 pandemic trajectories: why changes in online behavior matter for now-casting
   - date: 2022-02-10
   - Authors: Sara Mesquita, Lília Perfeito, João Loureiro and Joana Gonçalves-Sá
   - Conference: NetSciX 2022 - International School and Conference on Network Science Porto, Portugal
3. Title: Sensitivity to neutrinoless double beta decay of 136Xe with a third generation TPC dark matter experiment

- date: 2022-06-01
- Authors: A. Lindote and I. Olcina
- Conference: Neutrino 2022, Seoul, Korea (virtual)

4. Title: Neutrino physics with the LUX-ZEPLIN Detector
   - date: 2022-05-31
   - Authors: Paulo Brás (on behalf of LZ Collaboration)
   - Neutrino 2022 Seul,Coreia (virtual)
5. Title: Deciphering Jet Quenching Effects with Novel Reclustering Tool
   - date: 2022-04-06
   - Authors: Liliana Apolinario, Pablo Rodriguez, Korinna Zapp
   - Conference: Quark Matter 2022 Krakow, Poland (remote)
6. Title: Timing RPC for thermal neutron detection with 3D position sensitivity
   - date: 2022-09-26
   - Conference: XVI Workshop on Resistive Plate Chambers and Related Detectors CERN, 26–30 Sept 2022
7. Title: Advances Towards a Large-Area, Ultra-Low-Gas-Consumption RPC Detector
   - date: 2022-05-22
   - Conference: PM2021 - 15th Pisa Meeting on Advanced Detectors - Edition 2022 May 22-28, 2022, La Biodola - Isola d'Elba (Italy)
8. Title: Improving count rate capability of timing RPCs by increasing the detector working temperature
   - date: 2022-05-22
   - Conference: PM2021 - 15th Pisa Meeting on Advanced Detectors - Edition 2022 May 22-28, 2022, La Biodola - Isola d'Elba (Italy)
9. Title: Large Field CdTe Monitor for Astrophysics and TGF Science on board the Space Rider
   - date: 2022-11-07
   - Authors: R. M. Curado Da Silva, J. M. Maia, J. Sousa, P. Póvoa, J. Mingacho, G. Falcão, J. Gonçalves, G. Salgado, M. Moita
   - Conference: IEEE Nuclear Science Symposium Milano, Italy
10. Title: Dual-Polarity Ion Drift Chamber: Experimental results with Xe-SF6 mixtures
    - date: 2022-05-22
    - Authors:
    - Conference: place:
11. Title: Between even and odd: probing the CP-nature of the Higgs-Top Yukawa coupling date: 2022-07-08
    - conference: International Conference on High Energy Physics (ICHEP 2022) Bologna, Italy
12. Title: The microevolution of information on social media
    - date: 2022-10-20
    - Authors: Lília Perfeito and Joana Gonçalves-Sá
    - Conference: CCS 2022 - Conference on Complex Systems Palma de Maiorca, Spain
13. Title: Flu or Not: A computational approach to respiratory-disease surveillance before and after COVID-19
    - date: 2022-10-20

- Authors: Eleonora Tulumello, Sara Mesquita, Lilia Perfeito, Irma Varela-Lasheras and Joana Gonçalves-Sá
- Conference: CCS 2022 - Conference on Complex Systems Palma de Maiorca, Spain

14. Title: Flu or Not: A computational approach to respiratory-disease before and after COVID-19
    - date: 2022-11-09
    - Authors: Irma Varela-Lasheras, Sara Mesquita, Eleonora Tulumello,Lília Perfeito, and Joana Gonçalves-Sá
    - Conference: EPH - 15th European Public Health Conference 2022 Berlin, Germany
15. Title: Flu or Not: A computational approach to respiratory-disease before and after COVID-19
    - date: 2022-11-09
    - Authors: Irma Varela-Lasheras, Sara Mesquita, Eleonora Tulumello,Lília Perfeito, and Joana Gonçalves-Sá
    - conference: [3C] Cells, Computers & Clinics Oeiras, Portugal
16. Title: Proton Multi-Beam FLASH Radiotherapy: Combining FLASH and IMPT
    - date: 2022-11-30
    - Authors: Joana Leitão, João Seco, Patrícia Gonçalves
    - Conference: Flash Radiotherapy and Particle Therapy 2022 Barcelona
17. Title: Monte Carlo Modeling of Inter-Track Radical Reactions for FLASH
    - date: 2022-11-30
    - Authors: Miguel Molina, Yujie Chi, T. Zhang, Patrícia Gonçalves and João Seco
    - Conference: Flash Radiotherapy and Particle Therapy 2022 Barcelona
18. Title: Simulation of a multi-slat prompt-gamma camera for proton beam distal edge determination during pelvic irradiation
    - date: 2022-11-05
    - Authors: J. Silva, H. Simões, A. Morozov, J. Teodoro, P. Crespo
    - Conference: IEEE Nucl. Sci. Symp. & Med. Imag. Conf. (NSS/MIC) Milano, Italymulti-slat
19. Title: Simulation of proton range monitoring in an anthropomorphic phantom using a multi-slat prompt-gamma camera
    - date: 2022-11-05
    - Authors: J. Teodoro, H. Simões, A. Morozov, J. Silva, P. Crespo
    - Conference: IEEE Nucl. Sci. Symp. & Med. Imag. Conf. (NSS/MIC) Milano, Italy
20. Title: Positron emission tomography for proton range verification in proton radiation therapy
    - date: 2022-11-05
    - Authors: S.P. Tavernier, R. Bugalho, F. Caramelo, J.P. Cesar, P.Crespo, J.C. Da Silva, L. Ferramacho, N. Ferreira, P. Gonçalves, D.Grosshans, B. Jesus, K.Klein, K. Lang, C. Layden, C. Leong, W. Matava,A. Mozorov, F. Poenisch, M. Proga, N. Sahoo, J. Seco, H. Simões, R.Silva, M. Silveira, J. Varela
    - Conference: IEEE Nucl. Sci. Symp. & Med. Imag. Conf. (NSS/MIC) Nov. 5 - 12, Milano, Italy
21. Dias, Ana; Moreira, Inês Pimentel; Lychko, Iana; Nurrito, Arianna; Barbosa, A.J.M.; Lutz-Bueno, Viviane; Mezzenga, Raffaele; et al. Corresponding author: Roque, Ana Cecília

Afonso. "Hierarchical Self-Assembly of the Reflectin-Derived Protopeptide". Preprint. 2023. http://dx.doi.org/10.2139/ssrn.4406145. 10.2139/ssrn.4406145

22. Studying mass generation for gluons Gernot Eichmann, Jan M. Pawlowski (selected for Editor's choice) SciPost Phys.Proc. 6 (2022) 018 https://doi.org/10.48550/arXiv.2112.08058

Posters (international meetings)

1. MOUTINHO CABRAL, I., MADEIRA, C., GROSSO, A.R., COSTA, P.M. (2022). Bioprospecting marine environments for unravelling novel drugs: Transcriptomics and interactome-directed analyses of two toxin-secreting Polychaeta. 1st Egas Moniz One Health Symposium.
2. NUNES, M., MOUTINHO CABRAL, I., GONÇALVES, C., MISSIONÁRIO, M., FERNANDES, J.F., TRAVESSO, M., MADEIRA, D., COSTA P.M., MADEIRA, C. (2022). Transcriptome profiling of the common goby Pomatoschistus microps exposed to seasonal warming reveals gene downregulation as an energy-saving mechanism to cope with thermal stress. 1st Egas Moniz One Health Symposium.
3. MARTINS, C., MOUTINHO CABRAL, I., CARVALHO, L.M., DE OLIVEIRA GALVÃO, M.F., SAÚDE, M.L., DREIJ, K., COSTA P.M. (2022). Molecular mechanisms behind the effects from interaction of carcinogens and emerging pollutants: in vivo and in vitro perspective. XVIth International Congress of Toxicology.
4. GONÇALVES, C., COSTA, P.M. (2022). Unravelling cephalopod venom glands through histological and transcriptomic approaches. Encontro Ciência’22.
5. Barbosa, A.J.M.; Arianna Nurrito; Ana Margarida Dias; Soares, Cátia; Lychko, Iana; Roque, ACA. "Modeling studies of reflectin de novo peptide assembly". Paper presented in 15th National Physical Chemistry Meeting (15ENQF) and 4th Computational Chemistry Symposium, 2023.
6. Carlos Costa; Barbosa, A.J.M.; Ana Margarida Dias; Roque, ACA. "Affinity reagents towards the SARS-CoV-2 spike protein". Paper presented in BPP2022 Biopartitioning & Purification Conference, 2022.

Posters (national meetings)

1. GONÇALVES, C., GROSSO, A.R., COSTA, P.M. (2022). Advances on the venom glands of Cephalopoda: Targets for the prospecting of novel bioactives. UCIBIO Scientific Advisory Board Meeting.
2. Title: Detecting land-surface changes from space: Porting the Aqua Monitor application from Google Earth Engine
   - date: 2022-03-22
   - Authors: B. Backeberg, Z. Benta, M. David, G. Donchyts, J. Gomes, T.Gonçalves, J. Langemeijer, J. Pina, M. Viana

- Conference: First Copernicus National Conference Évora, Portugal

Thesis / Dissertation

PhD Thesis

Finished

1. On the measurement and interpretation of the fluxes of galactic cosmic-ray nuclei Eduardo Bueno (https://doi.org/10.33612/diss.253636377)
2. Guilherme Guedes A global approach to physics beyond the Standard Model (https://hdl.handle.net/10481/76867)
3. Ana Sofia Inácio Measurement of the 130 Te Two-Neutrino Double Beta Decay Half-life with the SNO+ Experiment
4. Maria Ramos The interplay between collider and astrophysical probes of non-minimal composite Higgs models (https://digibug.ugr.es/bitstream/handle/10481/72877/95029%281%29.pdf?sequence=4)
5. Correia, M.J. 2022. Tools for the management and conservation of the European eel (Anguilla anguilla): An application to Santo André lagoon. Faculdade de Ciências, Universidade de Lisboa, 203 pp. Submitted in May 2022.

Ongoing

1. Susana Santos Study of the ttH production and Higgs couplings to Top quarks in the ATLAS experiment
2. Miguel Orcinha Estudo da modulação Solar no fluxo de raios cósmicos com dados da experiência AMS
3. The effects of proton therapy on protein self-organization: potential benefits for neurodegenerative disorders Carina Coelho (UL/FCUL)
4. Adaptive dose reconstruction with online in-vivo range verification in particle therapy Mariana Brás (UL/IST)
5. Developing Multi-Beam FLASH with Proton Beams Joana Leitão (UL/IST)
6. Radiation Damage of Optical Components in Scintillator Detectors: from the ATLAS/LHC Tile Calorimeter to Future Experiments Beatriz Pinheiro Pereira (UL/IST)
7. Radiation Damage of the TileCal Optics components at the High Luminosity LHC phase Rudnei Machado (UL/IST)
8. Raios Cósmicos: desenvolvimento de módulos de divulgação através design participativo Luís Afonso
9. Reaching for PeVatrons with the future Southern Wide-field Gamma-ray Observatory Lucio Gibilisco (UL/IST)

10. Development of microdosimetric detectors for radiobiology in hadron therapy facilities Cristiana Rodrigues (UL/FCUL)
11. Accelerating the ATLAS Trigger system with Graphical Processing Units Nuno Fernandes (UL/IST)
12. Measurement of Collider Neutrinos with the SND@LHC Experiment Guilherme Soares (UL/IST)
13. Disentangling and Quantifying Jet-Quenching With Generative Deep Learning João Arruda Gonçalves (UL/IST)
14. Enhanced Searches with the Pierre Auger Observatory in the Era of Multi-messenger Astrophysics Alexandra Fernandes (U.Minho)
15. Measurements of Short Range Correlations on Exotic Nuclei at R3B using TRPCs Manuel Xarepe (UL/FCUL)
16. Jetography in Heavy Ion Collisions André Cordeiro (UL/IST)
17. AutoBSM: Validating Beyond the Standard Model Physics with Machine Learning Fernando Souza (U.Minho)
18. Study of lepton universality in top quarks pairs events Giacomo Da Molin (UL/IST)
19. Multi-messenger physics with the Pierre Auger Observatory and SWGO Pedro Costa (UL/IST)
20. The Partonic Structure of Hadrons Eduardo Ferreira (UL/IST)
21. Formal and phenomenological studies in the high energy limit of QCD Dario Vaccaro (UL/IST)
22. Characterization of liquid argon detectors for next generation neutrino physics Wallison Campanelli (UL/FCUL)
23. Differential tracking on disinformation websites and its impact on search engine results Íris Damião (UL/IST)
24. Probing CP couplings in ttX production at the Run3 of the LHC Esteban Chalbaud (U.Coimbra, IDPASC PT-CERN Call 2022/1)
25. Beatriz C. Almeida, Ricardo S.V. Pires, Kristala L.J. Prather, and Alexandra T.P. Carvalho. The role of zing in transcription factor allosteric regulation.
26. Ricardo D. González, Warispreet Singh, Lino Ferreira, and Alexandra T.P. Carvalho. Enzymatic synthesis of RNA-peptide conjugates as potential therapeutics for COVID-19.
27. Inês Carvalho Leonardo (2020.08210.BD)
28. 2021.07128.BD - Fábio Martins - Rational Development of Nanomedicines for Cardiovascular Diseases.
29. 2020.09087.BD - Rita Magalhães - In Silico Optimization of Biocatalysts for Plastic Biodegradation.
30. SFRH/BD/147276/2019 - Susana Maria da Fonseca Fernandes - Development of biocidal formulations for effective biofouling control.
31. SFRH/BD/136594/2018 - André Figueiredo Pina - Innovative approach to fight tuberculosis and malaria targeting the extraordinary PLP synthase macromolecular complex.
32. SFRH/BD/137844/2018 - Claudia Tatiana Freitas Vieira - New Drugs Against Biofilm Formation and Development: a Computational and Experimental Approach.
33. SFRH/BD/136746/2018 - Juliana Ferreira Rocha - Rational development of new biocatalysts for the production of Parkinson Disease Drugs.

34. Cereja, R. (2023). Phytoplankton in estuarine waters: assessment of temporal and spatial variability. Doutoramento Earthsystems, Faculdade de Ciências, Universidade de Lisboa.

Master Thesis

Finished

1. João Antunes Particle reconstruction in large liquid scintillator detectors using charge and time signal modelization - the SNO+ neutrino physics experiment (UL/IST)
2. Daniel Neacsu Dark matter searches at the LHC in models with extended scalar sectors
3. Lígia Lopes Lecionar através de métodos não convencionais: uma investigação sobre a abordagem lúdica no ensino
4. Fátima Alcaso Design and optimisation of a xenon TPC with SiPM readout for neutrinoless double beta decay studies
5. Rúben Inácio Exploiting Graph Neural Networks for jet identification in LHC experiments
6. António Oliveira Unsupervised machine learning techniques in high energy physics
7. Beatriz Artur Impact of Quark-Gluon Plasma in Extensive Air Showers (https://fenix.tecnico.ulisboa.pt/cursos/meft21/dissertacao/1972678479055537))
8. Rita Silva Optimisation studies for the pion-induced Drell-Yan measurement at the AMBER experiment (UL/IST https://fenix.tecnico.ulisboa.pt/cursos/meft21/dissertacao/565303595502847)
9. Henrique Neves From the Concept to Development of Astrophysics Payloads for Gamma Radiation Studies (U.Coimbra)
10. Carlota Cardoso Flight data analysis of the BERM radiation monitor aboard the BepiColombo mission to Mercury (UL/IST)
11. Francisco Barba Characterization of thin silicon strip detectors for nuclear experiments (UL/FCUL http://hdl.handle.net/10451/53658)
12. André Torcato Heavy-baryon spectroscopy in a quark-diquark 1. approach (UL/FCUL http://hdl.handle.net/10451/51871)
13. David Almeida PandeMedia: an annotated corpus of digital media for issue salience (UL/FCUL http://hdl.handle.net/10451/55576)
14. Matilde Santos Caracterização e teste funcional de um micro dosímetro de fibras ópticas cintilantes (UL/FCUL http://hdl.handle.net/10451/53766)
15. Nísia Fernandes Estudo da radiossensibilização de células tumorais do pâncreas com nanopartículas (http://hdl.handle.net/10451/51982)
16. José Rodrigues Embedded systems for heating and machine learning in microcontrollers (U.Coimbra)
17. João Lopes Looking for (de)coherence effects in the Quark-Gluon Plasma (UL/IST https://fenix.tecnico.ulisboa.pt/cursos/left21/dissertacao/565303595502771)
18. Nuno Madureira Jet substructure tools to identify hadronization timescales (UL/IST https://fenix.tecnico.ulisboa.pt/cursos/meft21/dissertacao/565303595502772)
19. NUNES, M. (2022). Gene networks modulating heat acclimatization in common gobies: influence of latitude and season in fish metabolism and health. M.Sc. thesis, NOVA School of Science and Technology, NOVA University of Lisbon, Monte de Caparica. Advisors:

Carolina Madeira and Pedro M. Costa.

20. MOUTINHO CABRAL, I. (2021). A computational approach to identify target receptors of marine toxins in the human proteome: Potential biotechnological applications. M.Sc. thesis, NOVA School of Science and Technology, NOVA University of Lisbon, Monte de Caparica. Advisors: Pedro M. Costa and Ana Rita Grosso.
21. Brandão, P.R. 2022. Portuguese estuarine systems and their essential ecological role for some fish species: trends and predictions in face of global changes. Mestrado em Ecologia Marinha, Universidade de Lisboa, Faculdade de Ciências. 61 pp.
22. Santos, Gil, 2022. Activity patterns and tridimensional space use of the European catfish (Silurus glanis) on Belver reservoir. Mestrado em Biologia da Conservação, Universidade de Lisboa, Faculdade de Ciências. 57 pp. http://hdl.handle.net/10451/51885
23. Almeida, J. 2022. Trace Metals in the Sado Estuary and their implications on the Environmental Quality. Mestrado em Ciências do Mar, Faculdade de Ciências, Universidade de Lisboa, 103 pp. Submitted in July 2022.

Ongoing

1. Rúben Inácio Exploiting Graph Neural Networks for jet identification in LHC experiments (UL/IST)
2. Carolina Felgueiras Simulations and benchmark of a fast neutron detector for nuclear astrophysics (UL/FCUL)
3. Magda Duarte Development of high-resolution, three-dimensional muographies (U.Minho)
4. Joana Vences Next-generation Neutrino Physics: Development of the DUNE laser-based Calibrations
5. Simão Costa Quark hadronization with B mesons at the LHC (UL/IST)
6. André Neves Astrofísica Multi-Mensageira com o Telescópio AMEGO da NASA (U.Coimbra)
7. Francisca Santos Launching the Radiation Hard Electron Monitor aboard the ESA JUICE mission (UL/IST)
8. Francisco Barreiro Geometrical aspects of jet quenching in small systems
9. Manuel Mariano Sensitivity of jet sub-structure observables to jet quenching in collisions of light nuclei (UL/IST)
10. Tomás Almeida Design of a phantom for radiobiology studies (UL/FCUL)
11. Igor Gago Life prospection on Mars - Studing the Martian Subsurface Radiation Environment (UL/IST)
12. João Pires Deep Neural Netwoers in Experimental Data Analyses (UL/FCUL)
13. Milton Freitas Measurement of the number of muons in high occupancy MARTA stations (UL/IST)
14. Lia Pereira Modelling protein amyloid structures and observing the effects of radiation using the GEANT4-DNA toolkit (UL/FCUL)
15. João Jantarada Simulation of a p-process in a Supernova Explosion using the NucNet Tools framework (UL/FCUL)
16. Tomás Sousa Characterization of CsI(Tl) Crystals and Implementation of tools for the CALIFA calorimeter at FAIR
17. Rita Pestana Development of a standard methodology for online dose calculation in air (UL/FCUL)

18. Henrique Legoinha Probing the properties of the plasma of quarks and gluons with heavy flavour (UL/IST)
19. Joana Reis Implementation of quark mass effects in QCD three-jet production observables produced by hadronic decays of the Z-boson at FCC-ee collider (UL/FCUL)
20. Daniel Salgueiro Design of a fiber-phantom detector for quality assurance in PT (UL/FCUL)
21. Patrícia Ferreira Machine Learning for Anomaly Detection in the Atlas Trigger at the LHC (U.Coimbra)
22. Sandro Saltão Optimisation of the vertical separation of multiple scatter events in the LZ detector with applications in the sensitivity to the 0?2β decay of Xe-136 (U.Coimbra)
23. Gulherme Calé Jet jet correlations in QCD (UL/FCUL)
24. Céu Neiva Advanced machine learning techniques in rare events research at the Large Hadron Collider (U.Minho)
25. José Cordeiro Development of an FPGA-accelerated clustering for the ATLAS trigger system (UL/IST)
26. Catarina Pereira Performance of the TileCal High Voltage Upgrade System (UL/FCUL)
27. Pedro Lagarelhos Prospects for the HL-LHC of the measurement of the top quark couplings in the ttbar semileptonic channel (UL/IST)
28. Ana Campos Estudo da dispersão de partículas alfa em filmes finos (UL/FCUL)
29. Guilherme Crispim Pre-equilibrium of the Quark-Gluon Plasma (UL/IST)
30. Miguel Lopes Integration of the HiRezBrainPET with a clinical PET/CT system - Image performance evaluation of a prototype for next-generation brain tomography (UL/IST)
31. Maria Borges Beam tests of a scintillation array detector for high-resolution dosimetry (UL/IST)
32. Fábio Carmo Cálculo de espetro de emissão de Auger para simulações de radioterapia sensibilizada com nanopartículas de ouro (UL/FCUL)
33. Marco Leitão Disentangling QGP response using energy flow correlators (UL/IST)
34. António carvalho Fast algorithms of simulation of the positron-emitting activity generation for multi-beamlet proton therapy treatment plans (U.Coimbra)
35. Rúben Inácio Exploiting Graph Neural Networks for jet identification in LHC experiments (UL/IST)
36. João Lopes Looking for (de)coherence effects in the Quark-Gluon Plasma (UL/IST)
37. Nuno Madureira Jet substructure tools to identify hadronization timescales (UL/IST)
38. Ana Filipa Fernandes (MSc in Biotechnology / FCT-NOVA)

Patents

1. EP21306547 / BNT231376EP00 - Vincent Parissi, Sérgio F. Sousa, D. Lapaillere, O. Delelis, L. Meertens, S. Gallois-Montbrun, S. Routier - Pharmaceutical composition, its use as a drug and new compounds, especially for treating SARS-CoV-2 infection (Indole derivaties) 04 November 2021
2. EP21306521 / BNT231394EP00 - Vincent Parissi, Sérgio F. Sousa, D. Lapaillere, O. Delelis, L. Meertens, S. Gallois-Montbrun, M. Teulade-Fichou, R. Lartia, G. Bordeau - Pharmaceutical composition, its use as a drug and new compounds, especially for treating

SARS-CoV-2 infection (triphenylamine derivatives) 29 October 2021
3. Alexandra T.P. Carvalho, Beatriz C. Almeida, Pedro R. Figueiredo, Daniel F.A.R. Dourado, Stephanie Paul, Derek J. Quinn, Thomas S. Moody, Andreia F. Sousa, and Armando J.D. Silvestre. Novel Variants of Hyperthermophilic Carboxylesterase for Polymer Synthesis (PCT/IB2022/051111) 2022.

Datasets

1. MOUTINHO CABRAL, I., MADEIRA, C., GROSSO, A.R., COSTA, P.M. Cysteine-rich venom protein from Glycera alba. Direct submission to GenBank – Accession OL606744
2. MOUTINHO CABRAL, I., MADEIRA, C., GROSSO, A.R., COSTA, P.M. Serine protease inhibitor Kazal-type from Glycera alba. Direct submission to GenBank – Accession OL606745
3. MOUTINHO CABRAL, I., MADEIRA, C., GROSSO, A.R., COSTA, P.M. Cysteine-rich secretory protein from Hediste diversicolor. Direct submission to GenBank – Accession OL606746
4. MOUTINHO CABRAL, I., MADEIRA, C., GROSSO, A.R., COSTA, P.M. Thyrostimulin beta-5 subunit from Hediste diversicolor. Direct submission to GenBank – Accession OL606747
5. MOUTINHO CABRAL, I., MADEIRA, C., GROSSO, A.R., COSTA, P.M. Whole-transcriptome dataset for Glycera alba. Direct submission to GEO – Accession GPL31947
6. MOUTINHO CABRAL, I., MADEIRA, C., GROSSO, A.R., COSTA, P.M. Whole-transcriptome dataset for Hediste diversicolor. Direct submission to GEO – Accession GPL31948
7. GONÇALVES, C., MOUTINHO CABRAL, I., GROSSO, A.R., COSTA, P.M. Cysteine-rich venom protein from Sepia officinalis. Direct submission to GenBank - Accession number: OP198203 (under publication embargo)
8. GONÇALVES, C., MOUTINHO CABRAL, I., GROSSO, A.R., COSTA, P.M. SE-cephalotoxin from Sepia officinalis. Direct submission to GenBank - Accession number: OP198204 (under publication embargo)
9. GONÇALVES, C., MOUTINHO CABRAL, I., GROSSO, A.R., COSTA, P.M. Venom Insulin from Sepia officinalis. Direct submission to GenBank - Accession number: OP198205 (under publication embargo)
10. GONÇALVES, C., GROSSO, A.R., COSTA, P.M. Cysteine-rich venom protein from Octopus vulgaris. Direct submission to GenBank - Accession number: OP209720 (under publication embargo)
11. GONÇALVES, C., GROSSO, A.R., COSTA, P.M. Cysteine-rich venom protein (latisemin-like) from Octopus vulgaris. Direct submission to GenBank - Accession number: OP209721 (under publication embargo)
12. GONÇALVES, C., GROSSO, A.R., COSTA, P.M. Chitinase from Octopus vulgaris. Direct submission to GenBank - Accession number: OP209722 (under publication embargo)
13. GONÇALVES, C., GROSSO, A.R., COSTA, P.M. Hyaluronidase from Octopus vulgaris. Direct submission to GenBank - Accession number: OP209723 (under publication embargo)
14. RODRIGO, A.P., MOUTINHO CABRAL, I., ALEXANDRE, A., COSTA, P.M. Cysteine-rich venom protein from Eulalia sp. Direct submission to GenBank – Accession OP254189 (under publication embargo)
15. RODRIGO, A.P., MOUTINHO CABRAL, I., ALEXANDRE, A., COSTA, P.M. Peptidase M12A from Eulalia sp. Direct submission to GenBank – Accession OP254190 (under publication

embargo)
16. RODRIGO, A.P., MOUTINHO CABRAL, I., ALEXANDRE, A., COSTA, P.M. Peptidase M12B from Eulalia sp. Direct submission to GenBank – Accession OP254191 (under publication embargo)
17. RODRIGO, A.P., MOUTINHO CABRAL, I., ALEXANDRE, A., COSTA, P.M. Peptidase M13 from Eulalia sp. Direct submission to GenBank – Accession OP254192 (under publication embargo)
18. RODRIGO, A.P., MOUTINHO CABRAL, I., ALEXANDRE, A., COSTA, P.M. Serine protease from Eulalia sp. Direct submission to GenBank – Accession OP254193 (under publication embargo)
19. RODRIGO, A.P., MOUTINHO CABRAL, I., ALEXANDRE, A., COSTA, P.M. Hyaluronidase from Eulalia sp. Direct submission to GenBank – Accession OP254194 (under publication embargo)

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