



ACT TODAY FOR A BETTER TOMORROW

RESEARCH POSTERS SESSION

23 - 27 OCTOBER 2023 - C3 ATRIUM

Presenting a scientific poster is a great way to share your research, interact with fellow researchers, and get instant feedback on your work.

It also serves as a valuable networking opportunity and allows you to forge relationships for future collaborations.

During lunch time and coffee breaks on October 24, as well as during the whole Ciências Research and Innovation Week (October 23-27), see the posters related to research @ Ciências ULisboa.

A.

MATHEMATICAL SCIENCES

CEAUL | CENTRE OF STATISTICS AND ITS APPLICATIONS



A.1

It Takes Time to Get it Right: Dynamic Prediction in Breast Cancer

Azevedo, S.; Sousa; Esteves

A.2

Does the use of specific biomarkers substantially improve the ability to identify individuals with familial hypercholesterolemia? A comparative study using pediatric and adult patients samples

Marcos Machado; Maria Fernanda Diamantino; Luísa Loura

A.3

Study of biomarkers in Multiple Myeloma: a statistical approach for longitudinal assessment of extracellular vesicles and its prognostic value

Carolina Pestana; Lisete Sousa; Cristina João

A.4

Unraveling academic success: a journey through Hierarchical Linear Models in the context of Portuguese students

Marcos Machado; Maria Fernanda Diamantino; Luísa Loura

CEMAT | CENTER FOR COMPUTATIONAL AND STOCHASTIC MATHEMATICS



A.5

Formations on Inverse Semigroups

Ana Catarina Monteiro

CMAFCIO | CENTER FOR MATHEMATICS, FUNDAMENTAL APPLICATIONS AND OPERATIONS RESEARCH



A.6 *The Period Travelling Salesman Problem: formulations built upon period-disaggregated variables*

Sofia Henriques, Ana Paias

A.7 *The maximum number of Parter vertices of acyclic matrices*

Maria Manuel Torres, Ali Mohammadian, Amélia Fonseca, Cecília Perdigão, Ângela Mestre

A.8 *ManiFEM, a C++ library for meshes and finite elements on manifolds*

Cristian Barbarosie, Anca-Maria Toader

A.9 *Node Based Compact Formulations for the Hamiltonian p-Median Problem*

Francisco Canas, Luís Gouveia

A.10 *Fractal functions in missing digit sets*

Guilherme Velez

A.11 *Proof Theory for Modal Logics*

Maria Osório Costa

A.12 *Random non-invertible two dimensional cocycles*

Tomé Graxinha

A.13 *Fractional and classical hyperbolic obstacle problems*

Pedro Campos

B. COMPUTER SCIENCE AND ENGINEERING

LASIGE | COMPUTER SCIENCE AND ENGINEERING RESEARCH CENTRE



B.1 *AA - Investigating game mechanics for real-world interactions*

Daniel Reis, Pedro Pais, David Gonçalves, João Guerreiro, Tiago Guerreiro, André Rodrigues

B.2 *CPS - A consumer-oriented mobile application for assessment of household appliances*

Catarina Moita, Zygimantas Jasiunas, Ana Paula Afonso, José Cecílio, Pedro Ferreira

B.3 *DSI - Deep learning interpretation to understand RNA splicing*

Pedro Barbosa, Alcides Fonseca

B.4 *HBI - Can ChatGP explain protein interactions better than Knowledge Graphs*

Rita Sousa, Sara Silva, Cátia Pesquita

B.5

RSS - Quantum specific smells

Ruben Câmara, José Campos, André Souto

B.6

RDNS - AML-Robust network intrusion detection based on diversity and machine learning

Allan Espindola, António Casimiro, Pedro Ferreira

C.

LIFE SCIENCES

CE3C | CENTRE FOR ECOLOGY, EVOLUTION AND ENVIRONMENTAL CHANGES



C.1

Mating behaviour and fertility of a monandrous insect under thermal stress

Afonso Grandela, Leonor R. Rodrigues & Pedro Simões

C.2

The genetic basis of lifespan in a host-pathogen model system

José Bento & Ivo Chelo

C.3

Fight or flight: How does the stability of predator-prey dynamics affect evolution?

Jessica G. King, Andy Gardner & Ines Fragata

C.4

The interplay between different types of negative interactions may generate priority effects between spider mite species

Miguel A. Cruz, Sara Magalhães, Vitor C. Sousa, Oscar Godoy & Flore Zélé

C.5

Pollinator diversity past and present: digitizing the bee collection of the National Museum of Natural History and Science of Portugal

Martim Baptista, Paulo Sousa & Roberto A. Keller

C.6

Influence of insectivorous birds and bats on rice production in West Africa: insights from a field experiment in Guinea-Bissau

Sottomayor M, Palmeirim AF, Rocha R & Rainho A

C.7

Using science and technology to unveil the hidden delicacy Terfezia arenaria, a desert truffle

Inês Ferreira, Teresa Dias, Abdul M. Mouazen & Cristina Cruz

C.8

Native and invasive coexisting Fabaceae: is there a clear distinction in seed endophytes?

Jesus JG, Gonçalves F, Clemente A & Trindade H

C.9

Ecology in human-dominated environments: from cities to transport networks

Pedro Pinho & Fernando Ascensão

C.10 *Subterranean Ecology*

Reboleira, A.S.P.S. & Subterranean Ecology Group

C.11 *Laminin 211 is required for cell proliferation and myoblast differentiation in mouse models for LAMA2-congenital muscular dystrophy*

Susana G. Martins, Vanessa Ribeiro, Pedro Gameio dos Santos, Ana Rita Soares, Catarina Melo, Fernanda Murtinheira, Federico Herrera, Rita Zilhão, Gabriela Rodrigues, Ana Rita Carlos & Sólveig Thorsteinsdóttir

MARE | CENTRE FOR ENVIRONMENTAL AND MARINE STUDIES



C.12 *Impacts of marine heatwaves and acute hypoxia on the short-snouted seahorse behaviour and acoustic communication*

Matilde Gomes, Barbara Remédios, Francisca Costa, Raquel Vasconcelos, Vanessa M. Lopes, Monica G. Mai, José R. Paula, Regina Bispo, Hugo Batista, Catarina Barraca, Núria Baylina, Rui Rosa, Marta S. Pimentel

C.13 *A STICKY RESEARCH - Bioinspired adhesive proteins from marine organisms*

Ventura I., Santos M.R., Henriques B.J., Gomes C.M., Santos R.

C.14 *The C2B - COASTAL CONSERVATION AND BIODIVERSITY research lab @ MARE – ULisboa (CIÊNCIAS)*

Susanne Tanner *et al.*

C.15 *Spatial patterns of phytoplankton size structure in the Atlantic Ocean Regions, comparing in situ and remote sensing*

Vanda Brotas, Afonso Ferreira, Vera Veloso, Andreia Tracana, Catarina Guerreiro, Glen Tarran, E. Malcolm S. Woodward, Lourenço Ribeiro, Jane Netting, Daniel Clewley, Steve Groom

C.16 *The Algae Culture Collection at Ciências – ALISU*

Ana Amorim, H. David, M.L. Dâmaso-Rodrigues

C.17 *Assessment of spatial and temporal patterns of nearshore fish communities through passive acoustic monitoring in a Marine Protected Area*

Noelia Ríos, Jodanne Pereira, Manuel Vieira, Gonçalo Silva, Miguel Pessanha Pais, Paulo Fonseca and Maria Clara P. Amorim

C.18 *From sea to farm: Bioengineering crop rhizospheres with marine plant growth promoting bacteria to enhance plant tolerance to abiotic stress*

Duarte, B., Carreiras, J., Cruz-Silva, A., Fonseca, B., Carvalho, R.C., Mateos-Naranjo, E., Rodríguez-Llorente, I.D., Pajuelo, E., Redondo-Gómez, S., Caçador, I., Matos, A.R., Mesa Marin, J. and Figueiredo, A.

C.19 *Human impacts towards coastal ecosystems: pharmaceuticals flow in estuarine food webs*

Duarte, I.A., Fick, J., Cabral, H.N., Duarte, B. and Fonseca, V.F.

C.20 *Promoting Sustainable Marine Planning in the Arctic and Antarctic*

Santos D, Rosa R, Badhe R, Ehler CN, Grant SA, Hughes K, Van de Putte AP, Xavier JC, Frazão Santos C.

C.21 *Climate-Related Vulnerability and Risk Assessment of Main Ocean Uses: An Overview*

Fernandes M., Vieira da Silva C., Frazão Santos C.

C.22 *Lessons Learned from Project Oceanplan: Marine Spatial Planning in a Changing Climate*

Frazão Santos *et al.*

C.23 *Physical Oceanography Research at MARE – Surface Salinity Maximum in the North Brazil Current, a 3-dimensional view*

Maria Cadima, Paola Castellanos, Fátima Sousa, Joaquim Dias

C.24 *Object-based and deep learning methods for semantic segmentation of high resolution images of Sado estuary - a case study*

M.C. Proença, R.N. Mendes, R. Melo

C.25 *Tunaprint: Molecular identification of canned tuna in Portugal*

Maria Inês Silva, Mariana Viegas, Vera Sequeira, Octávio Paulo, Ana Rita Vieira

CESAM | CENTRE FOR ENVIRONMENTAL AND MARINE STUDIES



C.26 *Incorporating Sand Dynamics into Beach Water Quality Science and Policy*

Chelsea Weiskerger & João Brandão

C.27 *Burrow architecture of the Lusitanian pine vole, *Microtus lusitanicus*, in semi-natural habitats.*

Ana M. Cerveira, Rita Andrade, Tomé Neves, Sofia I. Gabriel, Maria L. Mathias

D. **INTERDISCIPLINARY SCIENCES**

BIOISI | BIOSYSTEMS & INTEGRATIVE SCIENCES INSTITUTE



D.1 *Remodeling Lewis base anti-cancer drugs to selectively target acidic tumors*

Nuno F. B. Oliveira, Rita F. C. C. Guerra, Pedro M. S. Suzano, Tomás F. D. Silva, Miguel Machuqueiro

D.2 *A new dual role for the cytoskeleton modulator INF2 in the regulation of CFTR*

João F. Ferreira, Carlos M. Farinha

D.3 *The potential role of metabolism in the neurotoxic events of synthetic cathinones*

Rita Padinha Lopes, Tiago Vicente, Maria Ferreira, Cláudia C. Miranda, Alexandra M. M. Antunes, Helena Gaspar

D.4 *Alpha-synuclein Structural Dynamics from Molecular Dynamics Simulations*

Gabriel Martins, Nuno Galamba

D.5 *Nanobodies as protein-based tools to modulate Tau aggregation in Alzheimer's disease*

Margarida C. Simões, Joana S. Cristóvão, Els Pardon, Jan Steyaert, Cláudio M. Gomes

D.6 *Improving grapevine heat stress resilience with marine plant growth promoting rhizobacteria consortia*

João Albuquerque Carreiras, Ana Cruz-Silva, Bruno Fonseca, Ricardo C. Carvalho, Jorge P. Cruz, João Proença Pereira, Catarina Paiva-Silva, Soraia A. Santos, Rodrigo Janeiro Sequeira, Enrique Mateos-Naranjo, Ignacio D. Rodríguez-Llorente, Eloísa Pajuelo, Ana Rita Matos, Jennifer Mesa Marín, Andreia Figueiredo, Bernardo Duarte

D.7 *Disease similarity network analysis of Autism Spectrum Disorder and comorbid brain disorders*

Joana Vilela, Hugo Martiniano, Ana Rita Marques, João Xavier Santos, Célia Rasga, Guiomar Oliveira, Astrid Moura Vicente

D.8 *Exploring respiratory proteins from human bacterial pathogens*

Patricia Pires, Andreia Barreto, David Santos, Filipa Calisto and Manuela M. Pereira

D.9 *Unraveling the complexity of COVID-19 by FT-ICR-MS*

Mariana Louro, Marta Sousa Silva, Carlos Cordeiro

D.10 *Biochemical and biophysical alterations in glial cell models of the Autosomal Recessive Ataxia of Charlevoix-Saguenay (ARSACS)*

Murtinheira, Fernanda; Boasinha, Ana Sofia; Macedo, Luana; Nascimento, Patrícia; Pinto, Francisco; Torres, Vukosava; Rodrigues, Mário ; Herrera, Federico

E. **CHEMICAL SCIENCES AND TECHNOLOGIES**

CQE | CENTRE FOR STRUCTURAL CHEMISTRY

E.1 *Medicinal and Biological Chemistry for Health*

E.2 *Environment and Energy*

E.3 **ChemBio Services Facility**

E.4 **Innovation at CQE**

E.5 **Postgraduate M.Sc. and Ph.D. Students**

F. **PHYSICAL SCIENCES AND ENGINEERING**

IA | INSTITUTE OF ASTROPHYSICS AND SPACE SCIENCES



F.1 **The Birth of the galaxy main sequence in the young Universe**

Henrique Miranda, Ciro Pappalardo, José Afonso

F.2 **On the Selection and exploration of radio powerful Active Galactic Nuclei**

Pedro Martins, Israel Matute, José Afonso *et al.*

F.3 **Stabilisation of calibration light sources for High Accuracy Photometry Instruments**

Cédric Pereira, Manuel Abreu, Alexandre Cabral

F.4 **$f(Q)$ -gravity and neutrino physics**

Luís Atayde e Noemi Frusciante

F.5 **From icy deserts to dry volcanos using high-resolution spectroscopy in the Solar System**

João Dias *et al.*

IBEB | INSTITUTE OF BIOPHYSICS AND BIOMEDICAL ENGINEERING



F.6 **Building of a Breast Microwave Imaging Prototype**

Afonso Simões, Bruno Mendes, Gonçalo Canastra, Inês Correia, Joana Saraiva, Rodrigo Dias, Raquel Conceição, Daniela Godinho

F.7 **Dosimetric evaluation of a rotating gamma-ray system for stereotactic body radiation therapy**

A. Eldib, M. Fareed, S. Weiss, G. Mora, *et al.*

LIP - LABORATORY OF INSTRUMENTATION AND EXPERIMENTAL PARTICLE PHYSICS



F.8 **LOMaC: Development of particle detectors for fundamental research and medical applications**

João Gentil Mendes Saraiva on behalf of LOMaC/LIP

F.9 **TDL: Target Design Laboratory for nuclear reactions and detector applications**

P. Teubig, R. Nunes, M. Paulino, R. Pires and A. Vicent

G.

EARTH SCIENCES

IDL | INSTITUTE DOM LUIZ



INSTITUTO
DOM LUIZ

G.1

Accurate simulation of the first observer sting jet caused by a post-tropical cyclone shows extreme surface winds in Portugal

Miguel Lima, Luana Sanos, Rita Cardoso, Pedro Soares, Ricardo Trigo

G.2

High-resolution modelling shows atmospheric instability caused by Hurricane Ophelia was preponderant in the 2017 Portuguese wildfires

Miguel Lima, Rita Cardoso, Pedro Soares, Ricardo Trigo

G.3

Bias correction of two CMIP5-derived dynamic ensembles of wave climate projections towards the end of the 21st century

Gil Lemos, Melisa Menendez, Alvaro Semedo, Paula Camus, Mark Hemer, Mikhail Dobrynin, Pedro Miranda

G.4

Palaeomorphology and environmental evolution of the Sado incised valley, SW Portugal

Ana Maria Costa, Maria da Conceição Freitas, Rogério Mota, Manel Leira, Pablo Arias

G.5

Lead isotope systematics of VMS deposits from Oman

Ana P Jesus Thomas M Belgrano, André Cravinho, Bernhard Pracejus, Fatma Kourim, Kuo-Lang Wang, Mathieu Benoit, Mário A Gonçalves

G.6

Unravelling the November 1st, 1755 tsunami record across the Atlantic

Francisco Fatela, Pedro Costa, Francisco Dourado

G.7

Petroleum coke as a chronologic marker: insights from tidal marsh sediments of the Sado estuary, SW Portugal

J. Moreno, E. Leorri, F. Fatela, M. C. Freitas, F. Moreno, J. Mirão, L. Dias, M. Leira, P. Masqué, A. Russo, A. Cunha, M. Inácio and W. Blake

G.8

A new geodynamic model of the Azores archipelago: preliminary results

J. Almeida, J. Duarte, F. Rosas, R. Fernandes, H. Mohammadigheymasi, F. Geraldes, L. Carvalho, R. Ramalho

G.9

Gibraltar subduction zone is invading the Atlantic

João C. Duarte, Nicolas Riel, Filipe M. Rosas, Anton Popov, Christian Schuler, Boris J. P. Kaus

G.10

2D Geodynamic numerical modelling of continental subduction and exhumation

F. M. Rosas, A. Gomes, N. Riel, W. P. Schellart, J. Duarte, J. Almeida

G.11

Seasonal changes on tidal-induced noise on long-term OBS deployment

A. Loureiro, C. Corela, M. Tsekhmistrenko, M. Miranda, A. Ferreira & the UPFLOW Team

H. HISTORY AND PHILOSOPHY OF SCIENCES

CFCUL | CENTRE FOR PHILOSOPHY OF SCIENCE OF THE UNIVERSITY OF LISBON



H.1 *EVORISE - Exploring the evolutionary origin of sentience*

D. Vecchi

H.2 *PHIASM – Philosophical Investigation of Applications of Science in Mathematics*

D. Molinini

CIUHCT | INTERUNIVERSITY CENTER FOR THE HISTORY OF SCIENCE AND TECHNOLOGY



H.3 *Projecto E3Global*

Ana Simões

H.4 *Projecto RUTTER*

Henrique Leitão

H.5 *Projecto MoPRA*

Maria Elvira Callapez

H.6 *Ongoing projects led by CEEC researchers and hosted by CIUHCT*

Jorge Flores, Maurizio Esposito, Samuel Gessner Cristina Luís, Luís Tirapicos,
Ignacio García-Pereda, Francisco Malta Romeiras

H.7 *Bases de Dados @ CIUHCT: Dicionário Biográfico de Cientistas, Engenheiros e Médicos em Portugal, Bibliografia de História das Ciências, Tecnologia e Medicina em Portugal, 2000-2015, Tratadística hidráulica (Projecto AQUA), Inquisition in Action (Francisco Malta Romeiras), STEMgram (Hugo Silveira Pereira), Database of Maps and Nautical Charts (Projecto MEDEA-CHART)*