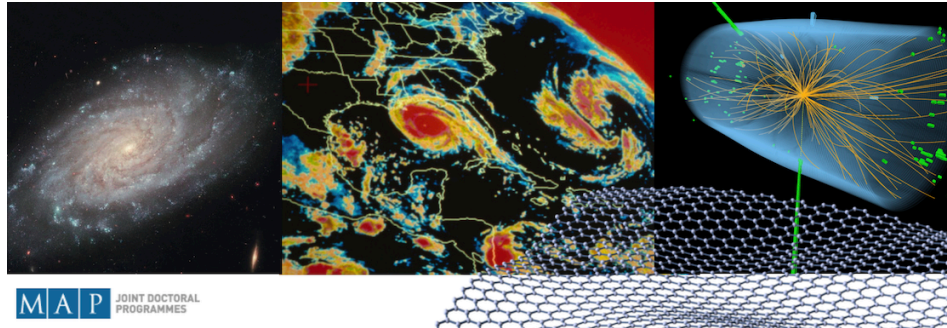


MAP-Fis Research Conference



Report of Contributions

Contribution ID: 41

Type: **not specified**

Structure, dielectric and magnetic properties of $\text{Ca}_3\text{Mn}_2\text{O}_7$ thin films prepared by pulsed laser deposition

Friday 14 July 2023 09:15 (20 minutes)

Presenter: SILVA, Bruna

Session Classification: Condensed Matter Physics and Nanomaterials (Chair: João Lopes dos Santos, Universidade do Porto)

Contribution ID: 42

Type: **not specified**

Wafer scale fabrication of epitaxial topological insulator Bi₂Se₃ top-gate devices by molecular beam epitaxy

Friday 14 July 2023 09:35 (20 minutes)

Presenter: BRITO, Daniel

Session Classification: Condensed Matter Physics and Nanomaterials (Chair: João Lopes dos Santos, Universidade do Porto)

Contribution ID: 43

Type: **not specified**

Many-particle systems with imperfect distinguishability

Friday 14 July 2023 11:30 (20 minutes)

Presenter: FERNANDES, Carlos

Session Classification: Quantum Information (Chair: Ernesto Galvão, INL)

Contribution ID: 44

Type: **not specified**

Generation of qutrit Bell states using only linear optics

Friday 14 July 2023 11:10 (20 minutes)

Presenter: CAMILLINI, Anita

Session Classification: Quantum Information (Chair: Ernesto Galvão, INL)

Contribution ID: 45

Type: **not specified**

Enhanced Searches with the Pierre Auger Observatory in the Era of Multi-messenger Astrophysics

Friday 14 July 2023 11:10 (20 minutes)

Presenter: FERNANDES, Alexandra

Session Classification: High Energy Physics and Cosmology (Chair: Nuno Castro, Universidade do Minho/LIP)

Contribution ID: 46

Type: **not specified**

Searching for dark matter with the ATLAS detector using unconventional signatures

Friday 14 July 2023 11:30 (20 minutes)

Presenter: BARROS, Maura

Session Classification: High Energy Physics and Cosmology (Chair: Nuno Castro, Universidade do Minho/LIP)

Contribution ID: 47

Type: **not specified**

Proca-Higgs balls and stars in a UV completion for Proca self-interactions

Friday 14 July 2023 11:50 (20 minutes)

Presenter: DOS SANTOS COSTA FILHO, Etevaldo

Session Classification: High Energy Physics and Cosmology (Chair: Nuno Castro, Universidade do Minho/LIP)

Contribution ID: 48

Type: **not specified**

Stability and physical properties of spherical excited scalar boson stars

Friday 14 July 2023 12:10 (20 minutes)

Presenter: BRITO, Marco

Session Classification: High Energy Physics and Cosmology (Chair: Nuno Castro, Universidade do Minho/LIP)

Contribution ID: 49

Type: **not specified**

Light rings in stationary axisymmetric spacetimes: Blind to the horizon's topology and able to coexist

Friday 14 July 2023 16:30 (20 minutes)

Presenter: NOVO, Joao

Session Classification: Astrophysics

Contribution ID: 50

Type: **not specified**

Tuning of 2D Ti₃C₂T_x MXene flakes for neuromorphic applications

Friday 14 July 2023 14:15 (20 minutes)

Presenter: TEIXEIRA, Henrique

Session Classification: Condensed Matter Physics and Nanomaterials

Contribution ID: 51

Type: **not specified**

Application of deep learning networks to GW astronomy

Friday 14 July 2023 16:10 (20 minutes)

Presenter: FREITAS, Osvaldo

Session Classification: Astrophysics

Contribution ID: 52

Type: **not specified**

Detection of highly diluted single-nucleotide polymorphism in healthy DNA using graphene field-effect transistors

Friday 14 July 2023 14:55 (20 minutes)

Presenter: DOMINGUES, Telma

Session Classification: Biophysics and Biomaterials (Chair: Elisabete Coutinho, Universidade do Minho)

Contribution ID: 53

Type: **not specified**

Atomic imaging of switchable domains in α -Bi₂Se₃ using room temperature scanning tunneling microscopy

Friday 14 July 2023 09:55 (20 minutes)

Presenter: AMAR, Elmahdi

Session Classification: Condensed Matter Physics and Nanomaterials (Chair: João Lopes dos Santos, Universidade do Porto)

Contribution ID: 54

Type: **not specified**

Towards ultrafast and ultra-compact lasers: uncovering ultrashort pulse generation mechanisms in semiconductor lasers with novel characterization approaches

Friday 14 July 2023 15:35 (20 minutes)

Presenter: GOMES, Tiago

Session Classification: Biophysics and Biomaterials (Chair: Elisabete Coutinho, Universidade do Minho)

Contribution ID: 55

Type: **not specified**

Self-assembled magnetic/plasmonic lipogels for multimodal cancer therapy

Friday 14 July 2023 14:15 (20 minutes)

Presenter: VELOSO, Sergio

Session Classification: Biophysics and Biomaterials (Chair: Elisabete Coutinho, Universidade do Minho)

Contribution ID: 56

Type: **not specified**

Multifunctional magnetic nanostructures for cancer theragnosis

Friday 14 July 2023 14:35 (20 minutes)

Presenter: CASPANI, Sofia

Session Classification: Biophysics and Biomaterials (Chair: Elisabete Coutinho, Universidade do Minho)

Contribution ID: 57

Type: **not specified**

Comparison of Structural and Dielectric Properties of Polycrystalline and Oriented Multiferroic CoFe₂O₄/BaTiO₃

Friday 14 July 2023 10:15 (20 minutes)

Presenter: OLIVEIRA, Joao

Session Classification: Condensed Matter Physics and Nanomaterials (Chair: João Lopes dos Santos, Universidade do Porto)

Contribution ID: 58

Type: **not specified**

Probing spin fractionalization with absolute magnetometry ESR-STM

Friday 14 July 2023 15:15 (20 minutes)

Presenter: DEL CASTILLO HERNÁNDEZ, Yelko

Session Classification: Condensed Matter Physics and Nanomaterials

Contribution ID: 59

Type: **not specified**

Coherence and contextuality from relational information

Friday 14 July 2023 12:30 (20 minutes)

Presenter: WAGNER, Rafael

Session Classification: Quantum Information (Chair: Ernesto Galvão, INL)

Contribution ID: **60**

Type: **not specified**

The role of structural distortions in triggering the metal to insulator transition in NdNiO₃

Friday 14 July 2023 15:35 (20 minutes)

Presenter: GOMES, Mariana

Session Classification: Condensed Matter Physics and Nanomaterials

Contribution ID: **61**

Type: **not specified**

Black hole shadows, exotic stars, and all that jazz

Friday 14 July 2023 16:50 (20 minutes)

Presenter: SENGU, Ivo

Session Classification: Astrophysics

Contribution ID: 62

Type: **not specified**

Noise-assisted digital quantum simulation of open systems

Friday 14 July 2023 11:50 (20 minutes)

Presenter: DIOGO COSTA GUIMARÃES, Jose

Session Classification: Quantum Information (Chair: Ernesto Galvão, INL)

Contribution ID: 63

Type: **not specified**

Exotic edge states in flat-band triangulene crystals

Friday 14 July 2023 14:35 (20 minutes)

Presenter: MADAIL, Luisa

Session Classification: Condensed Matter Physics and Nanomaterials

Contribution ID: 64

Type: **not specified**

Density Functional Theory and Perturbed Angular Correlation Study of the AMnGe₂O₆ Clinopyroxene series

Friday 14 July 2023 14:55 (20 minutes)

Presenter: MOREIRA, Ricardo

Session Classification: Condensed Matter Physics and Nanomaterials

Contribution ID: 65

Type: **not specified**

Development of a quality control and calibration instrument for Rangefinders/LiDARs.

Friday 14 July 2023 17:50 (20 minutes)

Presenter: CUNHA, Nelsson

Session Classification: Astrophysics

Contribution ID: 66

Type: **not specified**

Fluids of Light in photorefractive media as a playground to explore turbulent phenomena

Friday 14 July 2023 15:15 (20 minutes)

Presenter: FERREIRA, Tiago

Session Classification: Biophysics and Biomaterials (Chair: Elisabete Coutinho, Universidade do Minho)

Contribution ID: 67

Type: **not specified**

The Pauli-based model of quantum computation beyond qubits

Friday 14 July 2023 12:10 (20 minutes)

Presenter: PERES, Filipa

Session Classification: Quantum Information (Chair: Ernesto Galvão, INL)

Contribution ID: **68**

Type: **not specified**

Astrophysical and Local Tests of the Einstein Equivalence Principle

Friday 14 July 2023 17:10 (20 minutes)

Presenter: DIAS, Joao

Session Classification: Astrophysics

Contribution ID: **69**

Type: **not specified**

Using Machine Learning to Scan Beyond Standard Model Parameter Spaces

Friday 14 July 2023 17:30 (20 minutes)

Presenter: SOUZA, Fernando

Session Classification: Astrophysics

Contribution ID: 70

Type: **not specified**

Conformal multi-Regge theory

Friday 14 July 2023 12:30 (20 minutes)

Presenter: VILAS BOAS, Joao

Session Classification: High Energy Physics and Cosmology (Chair: Nuno Castro, Universidade do Minho/LIP)

Contribution ID: **106**

Type: **not specified**

Causal Inference and Propagation in Assembly Lines

Friday 14 July 2023 10:35 (20 minutes)

Presenter: BARROSO, Filipe

Session Classification: Condensed Matter Physics and Nanomaterials (Chair: João Lopes dos Santos, Universidade do Porto)

Contribution ID: **107**

Type: **not specified**

Non-universal aspects of effective string theory

Friday 14 July 2023 12:50 (20 minutes)

Presenter: GUILHERME BOURA DE MATOS, Jose

Session Classification: High Energy Physics and Cosmology (Chair: Nuno Castro, Universidade do Minho/LIP)

Contribution ID: **108**

Type: **not specified**

Fabrication of Bi₂Se₃ Photodetectors for Photo Galvanic Applications Using Optical Lithography

Friday 14 July 2023 12:50 (20 minutes)

Presenter: CALEB, James

Session Classification: Quantum Information (Chair: Ernesto Galvão, INL)