



# 7th IDPASC/LIP PhD Students Workshop

## Wednesday, 6 July 2022

### Scientific session: 1 (10:50 - 11:40)

-Conveners: Ricardo Gonalo

time	[id] title	presenter
10:50	[1] Cosmic Rays Outreach	AFONSO, Luis
11:02	[5] Muons acceleration in plasma-based accelerators	BADIALI, Chiara
11:14	[8] Probing CP couplings in $t\bar{t}X$ production at the Run 3 of the LHC	CHALBAUD, Esteban
11:26	[11] Jetography in Heavy Ion Collisions	CORDEIRO, Andr�

### Scientific session: 2 (12:10 - 13:35)

-Conveners: Francisco Neves

time	[id] title	presenter
12:10	[16] Searching for new particles with astrophysical compact objects	FILHO, Etevaldo
12:22	[12] Astroparticle multi-messenger physics	COSTA, Pedro
12:34	[9] Destructive potential of low-dose proton therapy (LDPT) on neurodegeneration disorders	COELHO, Carina
12:46	[13] Top quark physics and search for physics beyond the Standard Model at the Large Hadron Collider	DA MOLIN, Giacomo
12:58	[2] Modeling the radiobiological effects of gold nanoparticles in proton therapy of glioblastomas	ANTUNES, Joana
13:10	[7] New Radiobiological and Nanodosimetric Insights into Proton Therapy	CANHOTO, Jo�o
13:22	[14] Using Machine Learning to Scan Beyond Standard Model Parameter Spaces	SOUZA, Fernando

### Scientific session: 3 (14:40 - 16:05)

-Conveners: Filipe Veloso

time	[id] title	presenter
14:40	[24] RADIATION HARDNESS OF PLASTIC SCINTILLATING MATERIALS FOR SCINTILLATOR CALORIMETERS	MACHADO , Rudnei
14:52	[17] Enhanced Searches with the Pierre Auger Observatory in the Era of Multi-messenger Astrophysics	FERNANDES, Alexandra
15:04	[18] Accelerating the ATLAS Trigger system with Graphical Processing Units	FERNANDES, Nuno
15:16	[20] Going to the light-front with contour deformations	FERREIRA, Eduardo
15:28	[36] Development of microdosimetric detectors for radiobiology in hadron therapy facilities	RODRIGUES, Cristiana
15:40	[40] Measurement of Collider Neutrinos with the SND@LHC Experiment	SOARES, Guilherme

15:52	[43] Searches For Higgs Boson Pair Production In Final States With Two Bottom Quarks And Two Tau Leptons At The LHC	WULFF, Johan
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**Scientific session: 4 (16:35 - 17:25)****-Conveners: Sofia Andringa**

time	[id] title	presenter
16:35	[48] Disentangling and Quantifying the Quark Gluon Plasma with Generative Deep Learning	GONÇALVES, João Pedro Arruda
16:47	[22] Measurement of PeVatrons with the future Southern Wide-field Gamma-ray Observatory (SWG0)	GIBILISCO, Lucio
16:59	[25] Tweaking gravity	GONÇALVES, Tiago
17:11	[21] The motion of S2	FOSCHI, Arianna

# Thursday, 7 July 2022

## Scientific session: 5 (09:30 - 10:55)

-Conveners: Claudio Frederico Pascoal da Silva

time	[id] title	presenter
09:30	[19] The Smallest Warm Little Inflaton	FERRAZ, Paulo
09:43	[41] Double pulse generator for discharge plasmas for particle accelerators	TORRADO, Nuno
09:55	[42] Pentaquarks in a Bethe-Salpeter approach	TORRES ROJAS, Luis Raul
10:08	[39] Towards a yoctosecond imaging tool of the Quark-Gluon Plasma	SILVA, João Martins
10:23	[23] Muography for Underground Geological Surveys: ongoing application at the Lousal Mine (Portugal)	TEIXEIRA, Pedro
10:40	[49] Testing Unified Dark matter-energy models in the non-linear regime	CASTELÃO, Diogo

## Scientific session: 6 (11:25 - 12:40)

-Conveners: Filomena Santos

time	[id] title	presenter
11:25	[4] N-body simulations of primordial dark matter halos	BACHS ESTEBAN, Joan
11:40	[30] Implementation of a portable PET scanner for proton therapy beam quality assessment	MAGALHÃES, Catarina
11:52	[33] Radiation damage of the optical components in Scintillator Detector: from the ATLAS/LHC Tile Calorimeter to future experiments	PEREIRA, Beatriz
12:07	[10] Phase-2 Tracking for ITk based on ACTS and Higgs self-coupling	COELHO, Luis
12:22	[31] Proton Therapy - Bragg Peak monitoring through Prompt-Gamma: Detection and Instrumentation	VENÂNCIO, José

## Scientific session: 7 (14:25 - 15:55)

-Conveners: Nuno Barros

time	[id] title	presenter
14:25	[15] Generalizing models with variations of the fine-structure constant driven by scalar fields: extended Bekenstein model coupled to the dark sector	DIAS, João
14:40	[32] Higgs-Dilaton inflation in Einstein-Cartan gravity	PIANI, Matteo
14:55	[34] Central Exclusive Production at the LHC within the CMS Collaboration	PISANO, Matteo
15:10	[35] Polarimetric Studies of Galaxies	RINO-SILVESTRE, João
15:25	[28] Scintillation dosimetry with plastic optical fibres	GUERREIRO, Duarte
15:40	[38] A next-generation gamma-ray observatory powered by Machine Learning techniques	GONZALEZ, Borja

## Scientific session: 8 (16:25 - 17:55)

-Conveners: Nuno Castro

time	[id] title	presenter
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16:25	[37] Shadows of Kerr black holes with Proca hair	SENGO, Ivo
16:40	[26] Extending the SMEFT	GUEDES, Guilherme
16:55	[29] Diluting quark flavor hierarchies using dihedral symmetry	LEVY, Miguel
17:10	[6] Searching for dark matter with the ATLAS detector using unconventional signatures	BARROS, Maura
17:25	[50] The ATLAS jet trigger and the search for CP violation in WH production	BARRUÉ, Ricardo
17:40	[3] Dynamics of hadron formation	ARAUJO, Mariana