



**Summer School on Particle Physics  
(19 - 30 June 2023)**

**Students Talks**

<b>Tuesday 20/6</b>	1	ABAN Capellan Janus	Lepton Universality Violations by Kaluza-Klein Neutrinos in $b \rightarrow c \tau \nu$ Transition
	2	AHMED BORBORUAH Zafri	Left-Right Symmetry Breaking and Gravitational Waves : A Tale of Two Phase Transitions
	3	AVNISH -	Radiative Neutrino Mass with Electroweak Scale Majorana Dark Matter in Scotogenic Model
	4	BALAN Sri Sankari Alias Sowmiya	Fast and accurate AMS-02 antiproton likelihoods for global dark matter fits
	5	STADLBAUER Michael	QCD axion-nucleon couplings at finite density
	6	BIELLO Christian	Multiscale improved calculations for the LHC
	7	BIERMANN Lisa	Strong first-order EWPTs in a Type-II 2HDM-EFT and their implications on Higgs pair production
	8	BISWAS Tisa	Unveiling the non-standard interactions of Higgs at HL-LHC : EFT all the way
	9	BRITO CAMARA Henrique	Dark-seeded solution to the strong CP problem
	10	FERNANDEZ LOZANO Maria Jose	Thermal Corrections to Freeze-In Dark Matter
	11	SAHU Purushottam	Neutrinoless double beta decay in Left-Right symmetric model with double seesaw mechanism
<b>Thursday 22/6</b>	1	BUCCIOTTI Bruno	Black Holes as Probes for Ultralight Dark Matter
	2	CERVANTES HERNANDEZ Juan Esau	Higgs-portal dark matter from non-supersymmetric strings
	3	CHIKKABALLI RAMALINGEGOWDA Abhishek	Asymptotic safety as a guiding light to phenomenology

	4	CHUNDAWAT Singh Neetu Raj Singh	Neutrino spin flavor oscillations in intergalactic medium
	5	DAL CIN Davide	Ultraviolet Sensitivity of Peccei–Quinn Inflation
	6	DASHKO Andrii	Debye mass effects in the Dark Sector in the Early Universe
	7	DEL GROSSO Loris	Fermion soliton stars
	8	DEY Chinmoy	Threshold resummation for colour singlet productions.
	9	DIAS ASTROS Maria Isabel	Boosting sterile neutrino dark matter production with self-interactions
	10	ENGUITA-VILETA Víctor	On Discrete Goldstone bosons
	11	FAURE Theo Remi	Leptogenesis during a phase-transition
<b>Friday 23/6</b>	1	FERNANDEZ CASTAÑER Clara	Cornering large-N QCD with positivity bounds
	2	FERRANTE Emilio Steven	Collider Phenomenology of Near-Continuum Dark Matter
	3	FIRAT Eren	The Large Charge Expansion, from Particle Physics to Superfluids.
	4	FRERICK Jonas	Light Shining through The Dark Side of the Moon
	5	GAID Safa	Jet algorithms and jet substructure techniques at the LHC
	6	GEORIS Yannis	Parameter space for testable leptogenesis
	7	GOLA Shivam	Pseudo scalar dark matter in a generic U(1)X model
	8	HEMME Krogh Noline	Cosmology of a strongly-interacting dark sector
	9	HERNANDEZ YBARRA Edir Johann Edir	Aspects of the $1/N_c$ expansion of QCD
	10	HERNANDO ARIZA Luis Jose	Next-to-Leading Order electroweak corrections to leptonic tau-decays
	11	HULLER NASCIMENTO Fernanda	New light vector bosons: electroweak precision measurements

<b>Tuesday 27/6</b>	1	KALTSCHMIDT Mathieu	Axion Dark Matter Simulations with Adaptive Mesh Refinement
	2	KARMAKAR Siddhartha	Searching for effects beyond SMEFT in flavour physics.
	3	KIERKLA Maciej	Gravitational waves from supercooled phase transition in the Early Universe
	4	KUMAR Romal	Analysis of interference effects with loop-level mixing in the di-top final state involving two CP-mixed scalars
	5	LEE Jiheon	Gauged quintessence : Interplay between dark energy and dark matter
	6	LEVATI Gabriele	Probing tau lepton dipole moments at future Lepton Colliders
	7	LOCKYER Ian Joshua	Semi-visible jet phenomenology at the LHC
	8	LOHO Kousik	Dark Matter production from two evaporating PBH Distributions
	9	ŁUKAWSKI Michał	Charged Dark Matter in Supersymmetric Twin Higgs models
	10	MALHOTRA Lekhika	Cogenesis of visible and dark sector asymmetry in a minimal seesaw framework(2211.04722)
	11	FAURE Theo Remi	Leptogenesis during a phase-transition
	12	CATINARI Giuseppe	On-shell scattering amplitude
<b>Wednesday 28/6</b>	1	MARTONHELYI Timothy	Vector boson fusion production of new heavy physics at the LHC and future colliders
	2	MATTEINI Marco	Vacuum decay from thin to thick wall
	3	MELARA DURON Maritza Sheryl Maritza	Doublet-Triplet Scalar Dark Matter
	4	MÖHLING Kilian	Leading Logarithmic 3-loop Corrections to $(g-2)_{\mu}$ in the Two-Higgs-Doublet Model
	5	NAEEM Maria	W decay: Opening a window to new physics

	6	NALECZ Ignacy	Scalar phase transitions in models with a hidden sector
	7	PLATSCHORRE Arthur	Internal Structure of Axion Domain Walls
	8	PORTILLO SÁNCHEZ Diego	Resonant Majorana neutrino effects in $\Delta L = 2$ four-body hyperon decays.
	9	PRADHAN Kumar Akhila	Appearance of Majorana phase in two flavour neutrino oscillations with neutrino decay
	10	PRAJAPATI Kumar Hemant	W mass anomaly in the realm of beyond The Standard Model.
	11	PAPIRI Guglielmo	A study of the relativistic corrections to the polarized Tritium beta-decay for the PTOLEMY project
Friday 30/6	1	SEN Chandrima	Displaced Decays in the Seesaw Scenarios at the Hadronic and Leptonic Colliders
	2	SHIRI Nazanin	Phenomenological Predictions for Masses of Open-Charmed Dibaryons as Hexaquarks
	3	SOPOV Halstead Alexander	VISH $\nu$ : a unified solution to five SM shortcomings with a protected electroweak scale
	4	BARTNICK Kai	Supernovae and Neutron Stars as a Probe of QCD Axion Dynamics
	5	TADA Marie Aika	Phenomenology of a SU(6) Gauge-Higgs Grand Unified Theory
	6	TANCO Andres Santiago	Exploring unsupervised top tagging using Bayesian inference
	7	TONG Nicholas John Joshua	Optimal celestial bodies as dark matter detectors
	8	TONI Claudio	An updated view on the ATOMKI nuclear anomalies
	9	VALDIVIA Gustavo	Bounds on eV-scale sterile neutrinos from neutrinoless double-beta decay
	10	WENDLER Daniel	Constraining flavorful SMEFT operators with missing energy plus jet
	11	YI Jaeok	Misalignment mechanism for mass-varying gauge boson