Summer School on Particle Physics

Talk Presenters

First week:

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- ALLAHVERDIYEVA Minaya Minaya: Vector Meson Gravitational Form Factors and Generalized Parton Distributions at finite temperature within the soft-wall AdS/QCD Model
- ASGHARZADEH JELODAR Reza : Sigma-assisted Low-Scale Fundamental Composite Higgs Dynamics and Hierarchical Tuning
- AWASTHI Pravesh : Charged Lepton Flavour Violating meson decays in seesaw models.
- BAYARSAIKHAN Bilguun : Quantum Solitons
- BERA Sourav : Using angular observables to probe primary operators at colliders
- CARAM PATRIOTA Marcelle : On the analysis of the QCD spectral function and the g-2 of the muon
- CORBA' Sofia Panagiota : Correlated gravitational wave anisotropies from axion inflation
- DESAI Jay Tejas : Positivity at 1-Loop: Bounds on Photon and Gluon EFTs
- DE SOUSA LOURENCO Gabriel : Renormalisation scheme dependence of the Effective Potential
- FINKE Adrian Felix : Precision Calculation of the effective number of neutrinos in the Standard Model

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- GHOSH Rituparna : A Window into the Georgi-Machacek Scenario
- HERNANDEZ CUEVAS Jose Angel : Precision predictions of partial decay widths in the general Two-Higgs-Doublet Model
- HMISSOU Ayoub : Exploring the 95 GeV Higgs Boson Excesses in the Framework of the I(1+2)HDM
- IGNOTI Michela : Quantum estimation theory applied to the PMNS matrix: focusing on the CP violating phase
- KHANNA Akshat : Constraining the 3HDM parameter space
- KHAN Shabana : Implications of new physics in the light of B+ → K+νν measurement
- KROTH Jonathan David : Synchrotron radiation by slowly rotating fermions
- MCBLAIN Warin Patrick : Asymptotic Superluminality
- MONDOL Ranjini : Probing Neutrino Self-Interactions Using JWST Data
- PRASAD Anugrah : Approaching the Flavor Puzzle with insights from BGL models

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- SAMANTA Subrata : NLO unitarity and stability bounds in extended Higgs sectors
- SCHUESSLER Maurice : NLO QCD Corrections to DM annihilation into

$W\bar{q}q′$ in the CxSM
– SINGH Labh : Inflation and Dark Matter in Type-III Scotogenic Model
– SINGH Neelam : Finding the flavon of $\mathcal {Z}_N \times \mathcal {Z}_M$ flavour symmetry
– SINGH Vartika : Renormalization-group improved Higgs to gluons decay rate
– SNYDER Victoria : LieART 3.0
– TIBERI Lorenzo : t-channel mediators in SMEFT
– TRIBOLET Augustin Michel G : Modified Gravity Theories and the Amplification of Inflationary Perturbations
– TSISKARIDZE Tinatin : Baryogenesis and Leptogenesis
Second week:28(9)

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– ADARSH Pratik : Probing Neutrinoless Double Beta Decay and Lepton Flavor Violation via Fully Determined Dirac Mass Terms in LRSM with Double Seesaw
– ALIZADEH DARGAH Arefeh : Spin-2 Dark Matter: Freeze-In Production and Observational Signatures
– COOK Cameron John : Deep learning optimal molecular scintillators for direct dark matter detection
– FILIPOWICZ Karolina Maria : Light Dark Pions from an SO(N_DC) confining Dark Sector with higher order operators
– GHOURMIN Es-Said : Associated charged Higgs boson production within the 2HDM: e-e+ versus μ-μ+ colliders
– GOMULKA Adam Krzysztof : CMB Constraints on Thermal Axions from Axion-Lepton Interactions
– KULEJEWSKI Mateusz Konrad : Reheating after a Supercooled First-Order Phase Transition
– LOPEZ FUENTES Manuel Antonio : Long-lived dark mediators from a Higgs portal model
– MAIA DE ARAUJO PAIXAO Matheus : Updated Bounds on Dark Matter decay via non-minimal couplings from cosmic rays and gamma rays

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– MADERAZO Elliot Andrew : Dyonic Loops and Gravitational Instantons
– MARTINS GONCALVES Maria Alexandra : Dark Matter in singlet extensions of the Standard Model
– MASOMI JAHROMI Fatemeh : Dark Photon Constraints from CMB Polarization
– MATIAS Harold: Domain Walls from Discrete Flavor Symmetry Breaking
– MIGUNOV Ivan: Search for a candidate for Dark Matter in IDM theory.
– PANDEY Shreya: Drell-yan constraints on charged scalars: a weak isospin perspective
– PAUL Partha Kumar : Cogenesis of matter and dark matter from triplet fermion
– PRAT Clarisse : Exploring a Composite Dark Matter Model Using CONTUR and MadAnalysis5
– RADICCE JUSTINO Lucia : A Z4 symmetric model for self-interacting

dark matter and its detection probes

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– REETZ DA SILVA Mirian : Re-assessing Fundamental Aspects of Axion Electrodynamics
– ROUZBEHI Rouzbeh : Probing the Dark Sector; Insights from Collider Constraints
– SAHA Subham : Probing right-handed neutrinos via trilepton signals at the HL-LHC
– STUBBS Henry Patrick : Supernova bounds on new scalars from resonant and soft emission
– TAPENDER Tapender : Phenomenological Study of a Radiative Type-III Seesaw Model with Two Inert Scalar Doublets
– TARAMATI – : Singlet-Doublet Fermionic Dark matter in gauge theory of Baryons
– THOMSON-COOKE Jasmine : Electroweak phase transition enhanced by a CP-violating dark sector
– VANDELEUR James John : The significance of a full EFT approach to neutrino mass in the light of next generation oscillation experiments.
– ZHANG Weihang : Scale Dependence of Neutrino Mixing Parameters in the Scotogenic Model