# 2024 UniGe Physics day

# Friday 12 January 2024

### <u>Presentations: Morning 1</u> - H8 (09:10-10:30)

time	[id] title	presenter
09:10	[37] Searching for new physics in pileup	Prof. SCHRAMM, Steven
09:30	[1] Collective advantages in finite-time thermodynamics	ROLANDI, Alberto
	[12] Laser-guided Lightnings: Atmospheric discharges controlled by high-repetition rate laser filaments	MORENO, mr
09:50	[9] Our motion, gravitational waves and the isotropy of the Universe	PIJNENBURG, Martin
	[26] Measurement of the Isotopic Composition of Light Nuclei in Cosmic Rays with AMS	LI, Manbing
10:10	[31] The NUSES space mission	DAVARPANAH, Shideh
	[15] Towards the development of superconducting joints between REBCO coated conductors: a thermomechanical study	LUCAS ESPARSEIL, Celia

#### <u>Presentations: Morning 2</u> - H8 (11:00-12:30)

time [id] title	presenter
11:00 [38] Motivations for exploring quantum thermal machines	Prof. HAACK, Géraldine
11:20 [8] Tuning quantum phases through space charge doping	ØRSTED, Andreas
11:30 [5] Testing gravity through the distortion of time	CASTELLO, Sveva
11:40 [23] Commissioning of the TOF detector for the T2K ND280 Upgrade	VILLA, Emanuele
11:50 [22] Gas Detection via Quantum Fourier Transform Infrared Spectroscopy in Long-Path Absorption	NEVES, Simon
12:00 [35] First Physics Results from the FASER Experiment with LHC Run 3 Data	Ms TARANNUM, Noshin
12:10 [28] Calibration of Imaging Atmospheric Cherenkov Telescopes using Muons	VOITSEKHOVSKYI, Vadym
12:20 [19] Can we discover Beautiful resonances with Trigger Level Analysis?	FRANCHELLUCCI, Stefano

### <u>Presentations: Afternoon 1</u> - H8 (14:00-15:10)

time	[id] title	presenter
14:00	[39] More is Different	Prof. RADEMAKER, Louk
14:20	[7] The Hitchhiker's Guide to the Galaxy (peculiar velocities)	SORRENTI, Francesco
	[27] CTLearn: Deep Learning Framework for Ground-based Gamma-ray Astronomy	Dr MIENER, Tjark
	[25] FPGA Utilization for Addressing Data Challenges in the ATLAS Trigger System at HL LHC	AXIOTIS, Konstantinos
	[3] Twist angle dependent electronic properties of monolayer molybdenum disulfide on Au(111)	PUSHKARNA, Ishita

15:00 [30] Controlling and investigating domain structures in PbTiO3 ferroelectric thin	TOVAGLIERI, Ludovica
films and heterostructures	

## <u>Presentations: Afternoon 2</u> - H8 (16:10-17:10)

time	[id] title	presenter
16:10	[40] Review talk	Prof. CARRON, Julien
16:30	[17] Electronic structure of encapsulated mono- and bilayer T\$_d\$-MoTe\$_2\$	ISSING, Julia
	[29] Digital holography and artificial intelligence for real-time detection and identification of pathogenic airborne spores	BASSO, Tessa
	[33] Advancing Superconducting Wire Technology: From monofilament to Industrial-Scale Nb\$_3\$Sn wires for the next generation of accelerator magnets	LONARDO, Francesco
17:00	[16] Nuclei analysis of the AMS-02 experiment with machine learning	Dr KHAN, Shahid