Physics Days 2024 poster presentation sessions

Monday, March 4, 16:45 –18:00
Poster session 1

Theme	Poster number	Author	Title
Experiments and infrastructures	1	Pejk Amoroso	Point Defects in Ga-doped Ge
	2	Aqsa Ashraf	Development of Medium Energy Ion Scattering Technique
	3	Isak Björkman	Two-photon Landau-Zener-Stückelberg-Majorana effect
	4	Aron Dahlberg	Enhancing light outcoupling from TADF thin-films with metallic nanostructures.
	5	Joe Depellette	Strong actuation and nonlinear response of mass loaded membranes
	6	Sioneh Eyvazi Badelbo	Amorphous silicon metasurface for lasing with tunable directionality
	7	Kristiana Frei Nadarajah	Analysis of Microwave Resonators in High Magnetic Fields
	8	Matthew Herbst	Detecting Gravity at the Milligram Scale Using Optomechanics
	9	Akbar Hossain	Laser assisted sputter ion source-most recent results
	10	Arthur Jaries	HIBISCUS: A new ion beam cooler-buncher for high-precision experiments with exotic radioactive ions at NUSTAR/FAIR
	11	Antti-Jussi Kallio	New method to characterize thin film chemistry
	12	Matti Kalliokoski	Particle Physics with Machine Vision
	13	Kuldeep Kuldeep	Proximity induced superconductivity in few-layer WTe2 Josephson junction using normal Palladium contacts
	14	Anna Milieva	Validation of the CMS Precision Proton Spectrometer data using exclusive dilepton events
	15	Andreas Molander	The new ALICE Fast Interaction Trigger in LHC Run 3
	16	Igor Prozheev	Defects in aluminum-rich silicon-doped AlGaN
	17	Milla-Maarit Rantanen	Diamond timing detectors of the CMS Precision Proton Spectrometer
	18	Achini Rathnathilaka	Nanoscale Roughness Characterization of LPCVD-Fabricated SiN Thin Films on SiliconWafers Using AFM
	19	Joaquin Valdez Garcia	Challenges and opportunities of using cellulose substrates in photovoltaics
	20	Mika Väänänen	Design and construction of a modular 3D scanner for semiconductor devices
	21	Pelin Yildirim	Effective Interactions and Density of States in Plasmonic Bose-Einstein Condensation
Observations	22	Zhehao Chen	Microstructure and phase formation in epitaxial thin Ni-Al films
	23	Sebastian Holm	Manipulating the charger ion distribution towards fixed properties
	24	Anna Liski	Textured grain boundaries in WMoTaNbV high entropy alloy
	25	Fredrik Oljemark	Recent Pomeron and Odderon Physics with TOTEM
	26	Julia Ruohotie	Intermittency in interplanetary coronal mass ejections observed by Parker Solar Probe and Solar Orbiter
	27	Juska Soljento	Statistical Study on Turbulent Energy Transfer in Coronal Mass Ejection Sheaths at 1 au
Education and outreach	28	Katja Anniina Lauri	Attitudes towards Physics among Physics Minor Students
	29	Aurélie Vancraeyenest	CodeRefinery - supporting your research software development journey

Tuesday, March 5, 16:30 –18:00
Poster session 2

Theme	Poster number	Author	Title
Computational science	30	Vesa Björn	Mercury regolith modeling using MESSENGER spectrophotometry
	31	Prateek Chawla	Using variational quantum algorithms and tensor network methods to solve the quantum Heisenberg model
	32	Nima Fakhrayi Mofrad	Navigating Fusion Reactor Challenges: Correlations Between Surface Temperature, Plasma Particle Impact Angle and Erosion
	33	Aslak Fellman	Machine-learning interatomic potentials for FCC high-entropy alloys
	34	Tomás Fernández Bouvier	Molecular dynamics insights on the molecular P implantation for scabalable spin-qubit arrays
	35	Ali Hamedani	Developing a machine learning interatomic potential to study radiation-induced damage in 3C-SiC
	36	Ru He	Ultrahigh stability of oxygen FCC stacking sublattice in Ga2O3
	37	Ville Jantunen	Multiscale modeling of irradiation damage evolution for quantum technology
	38	Ruoyan Jin	Developing a general-purpose machine learning interatomic potential for Ge
	39	Sasu Karttunen	PALM-SLUrb: a single-layer urban surface model for micro to mesoscale atmospheric boundary layer studies
	40	Leo Kotipalo	Physics-motivated Cell-octree Adaptive Mesh Refinement in the Vlasiator 5.3 Global Hybrid-Vlasov Code
	41	Eeli Lamponen	Superconductivity in flat band systems with resonating valence bond pairing
	42	Tomas Lindén	ALICE- and CMS-experiments disk storage upgrade for LHC Run 3
	43	Tetiana Malykhina	A modified version of the MDRANGE software for calculations in nuclear material physics
	44	Ilya Moskalenko	Tunable coupler for qutrit-based quantum computing
	45	Ekaterina Mukhanova	Generation and analysis of squeezed states in Josephson Parametric Amplifier
	46	Marcel Niedermeier	Computing Chern numbers in two-band models with quantum circuits
	47	Aliisa Ojala	Computational study of cresol autoxidation: Initial steps in secondary organic aerosol formation
	48	Marzhan Toktaganova	Influence of an External Static Magnetic Field on the Dynamics of Vacuum Arc Initiation
Machine learning and artificial intelligence	49	Faluke Aikebaier	Machine learning the Kondo entanglement cloud from local measurements
	50	Jesper Byggmästar	Machine-learned interatomic potentials for complex materials
	51	Johannes Halkoaho	Quantifying the calcification of abdominal aorta with deep learning
	52	Emma Lehto	Human-in-the-loop applications in Bayesian optimization for materials science
Models and phenomenology	53	Tiago Antão	Designing frustrated moiré order with twisted van der Waals multiferroics
	54	Riya Baruah	Thermal control of qubits using effective temperatures
	55	Jenni Häkkinen	Exploring the gravitational wave power spectrum from first-order phase transitions
	56	Venla Koikkalainen	Vortices in the magnetospheric transition region of a global hybrid-Vlasov simulation
	57	Faith Kporha	Sputtering of Deuterium Supersaturated tungsten surfaces: A Molecular Dynamics Simulation Approach
	58	Ari Leppälä	Radiative-transfer coherent-backscattering modelling for photometric and polarimetric phase curves of Galilean satellites
	59	Vladislav Myrov	Personalized large-scale modeling of critical synchronization dynamics
	60	Rafael Nuñez	Calculating path-dependent electronic stopping in silicon crystals using plane-wave pseudopotentials.
	61	Emil Stråka	Computational modelling of magnetic colloidal particle self-organization and pattern formation at multiple length scales