PHYS Science Day 2025

26. August 2025

Dipoli (Lumituuli)

Program

12.45-13.05 **Talk 1: Kristiana Frei** (NANO group) "*Probing non-equilibrium quantum Hall states in a Corbino geometry*"

13.05-13.25 **Talk 2: Elizabath Nallukunnel Raju** (SMW group) "*Under water adhesion studies using soft matter adhesion microscope*"

13.25-13.45 **Talk 3: Saba Mehsar Khan** (ROTA group) "*Detecting quantized vortices in superfluid 3He and 4He using nanomechanical resonators*"

13.45-15.00 **Coffee break with poster session**

15.00-15.20 **Talk 4: Anshika Mishra** (ASP group) "*Manipulation of Polarons in Monolayer $NiBr_2$*"

15.20-15.40 **Talk 5: Teemu Tasanen** (MSP group) "*How Surfaces Grow: The One Equation to Rule Them All*"

15.40-16.00 **Talk 6: Matthijs de Jong** (QNOF group) "*Measurement of the Casimir force between superconductors*"

16.00-16.20 Alum **Benjamin Alldritt**, R&D Scientist, Bluefors

16.20-16.40 Alum **Matti Toivonen**, Full Stack Data Scientist, OP Group

List of Posters

No.	Name	Group	Title
1	Juuso Attenberg	NanoSpin	Mechanical Modulation of Confined Spin Waves in Yttrium Iron Garnet (YIG) Bridges
2	Huayu Bai	OPTICS	Topologically robust merging bound states in the continuum in photonic structures with forbidden symmetry
3	Dipti Boopalan	LIVING	Drop Coalescence Dynamics and Protein Interactions at the Air-Water Interface
4	Ales Cahlik	ASP	Observation of Multiferroicity in Two-dimensional NiBr2
5	Biao Chen	OPTICS	Spatial Filtering with Nonlocal Non-Hermitian Metasurfaces
6	Megan Dransfield	QNOF	Magneto-optical characterization of lutetium bismuth garnets
7	Muhammad Farooqui	CSM	Comparing PCA, t-SNE, and UMAP Dimensionality Reduction in Bayesian Optimization for High-Performance Bio-Based Foams
8	Laura Fieber	SMW	Self-recovery of wetting
9	Matthew Herbst	NEMS	Detecting Gravity at the Milligram Scale Using Optomechanics
10	Anna Huttunen	LIVING	Interactions between two vortex rings formed by synchronized and unsynchronized drop impacts
11	Atso Ikäheimo	ROTA	Coupling of nanomechanical resonators via a quantized vortex in superfluid 4He
12	Ruoyan Jin	NuMe	Data-efficient machine-learning interatomic potential for studying radiation effcts in germanium
13	Anastasios Karakasidis	NMG	Synthesis of Single-Walled Carbon Nanotubes/Graphene Nanoflakes Hybrid Nanostructures Utilizing Fe-Re Bimetallic Catalysts by Floating Catalyst Chemical Vapor Deposition
14	Lilian Kekkonen/Lauri Paukkunen	NANO	Flip-Chip Architecture for Graphene-Based Materials
15	Ilari Lilja	NANO	Genuinely multipartite entangled microwave graph states
16	Anton Lutsenko	NanoSpin	Magnonic Fabry-Pérot resonators as programmable phase shifters (complete result)
17	John McCord	KVANTTI	Coherent Interaction-Free Detection with Superconducting Qutrits
18	Etienne Niemiec	ACTIVE	Emergence of electrohydrodynamics patterns in oils mixtures under confinement
19	Koushik Swaminathan	QD	Coexistence of ergodic and nonergodic behaviour in a 1D model of a flat band superconductor
20	Harshit Sethi	SIN	Machine Learning for Tip Enhanced Raman Spectroscopy
21	Fahmy Yousry	OPTICS	Design of on-chip optical components using higher-order modes