

Accepted Posters – Finnish Quantum Days 2026, University of Jyväskylä

Poster ID	Title	Name	Family	Track	
P001	Geodesic-based optimal control for quantum gates in superconducting qubits	Adonai	da Silva	Quantum Computing, Algorithms & Software	
P002	A Socio-Technical Decision Framework for Guiding the Evolution of Quantum HPC Software Stacks	Ronja	Heikkinen	Quantum Computing, Algorithms & Software	
P003	Quantum-assisted Quadrature Rule for Insurance Payoff Models	Cristian	Galvis Florez	Quantum Computing, Algorithms & Software	
P004	NISQ-friendly Coined Quantum Walk for Chaos-based Cryptographic Applications	Natalie	Gibson	Quantum Computing, Algorithms & Software	
P005	Probing Quantum Error Correction on Superconducting Hardware: A Device-Specific Benchmarking Study	Ashutosh	Kumar	Quantum Computing, Algorithms & Software	
P006	Learning Quantum Phases from Basis-Dependent Sparsity	Clemens	Lindner	Quantum Computing, Algorithms & Software	
P007	Identifiability Transitions in Classical and Quantum Fourier Signal Encodings	Mikko	Mäkitalo	Quantum Computing, Algorithms & Software	
P008	Solving Quantum Many-Body Problems with Analog Devices	Vinicius	Mohr	Quantum Computing, Algorithms & Software	
P009	SL^2 -Anticoncentration and Fourier Visibility in Two-Local IQP Born Machines	Vainó	Mehtola	Quantum Computing, Algorithms & Software	
P010	Compressing Transformer Language Models via Matrix Product Operator Decomposition: A Case Study on PicoGPT	Tanmoy	Pandit	Quantum Computing, Algorithms & Software	
P011	Noise Adaptive SPAM Purification for large scale QPUs	Srivathsan	Srinivasan	Quantum Computing, Algorithms & Software	
P012	Quantum DevOps: Making Quantum Software Reproducible Across Providers	Jouni	Peltonen	Quantum Computing, Algorithms & Software	
P013	Local Gate Scheduling as a Continuous Quantum Optimal Control Problem	Jake	Muff	Quantum Computing, Algorithms & Software	
P014	Swinburne Quantum	Tapio	Simula	Quantum Computing, Algorithms & Software	
P015	Heat, work and fluctuations in a driven quantum resonator	Riya	Baruah	Quantum Foundations, Open Systems & Thermodyn	
P016	Generating autonomous collective coherence in qubits via common heat baths	Kuan-Hsun	Chiang	Quantum Foundations, Open Systems & Thermodyn	
P017	Designing non-Hermitian dynamics via rate operator transformations	Jaakko	Luomala	Quantum Foundations, Open Systems & Thermodyn	
P018	Heat measurement of quantum interference	Luca	Magazzù	Quantum Foundations, Open Systems & Thermodyn	
P019	Modeling dissipation and decoherence in qubit systems via the spin-boson model	Joona	Marjamäki	Quantum Foundations, Open Systems & Thermodyn	
P020	Dirac notation and Born rule as epistemic game when describing quantum optical experiments	Aku	Pajula	Quantum Foundations, Open Systems & Thermodyn	
P021	Can Active Information Solve Key Problems in the Bohm Theory?	Paavo	Pylkkänen	Quantum Foundations, Open Systems & Thermodyn	
P022	Simulating generic single-qubit dynamics via Polarization-Frequency Coupling in a photonic interferometer	Kalle	Raikisto	Quantum Foundations, Open Systems & Thermodyn	
P023	Hierarchical Pure States Approach to Non-linear Spectroscopy of Polaritonic Quantum Batteries	Sebastian	Toivonen	Quantum Foundations, Open Systems & Thermodyn	
P024	Open quantum system modeling of an optically trapped nanoparticle	Iita	Tuomisto	Quantum Foundations, Open Systems & Thermodyn	
P025	Towards optically driven JAWS for quantum circuit control	Simeoni	Ahopelto	Quantum Hardware, Devices & Engineering	
P026	Emitted power from double quantum dot and hexagonal lattice nanojunctions	Leo	Bellasai	Quantum Hardware, Devices & Engineering	
P027	Tuning Schottky barrier transparency in CoSi ₂ /Si/CoSi ₂ junctions fabricated by using Ga focused ion beam	Juan	Galván Paz	Quantum Hardware, Devices & Engineering	
P028	Characterization of superconducting niobium nitride thin films grown by thermal Atomic Layer Deposition	Annika	Häkkinen	Quantum Hardware, Devices & Engineering	
P029	Strain-Mediated Coupling Between a Flip-Flop Qubit and a Mechanical Resonator	Harsh	Kashyap	Quantum Hardware, Devices & Engineering	
P030	Quantum control of subradiant states in transmon pairs	Anna	Khylenko	Quantum Hardware, Devices & Engineering	
P031	Quantum dots as charge sensors for donor spin readout	Pratheek	Malol	Quantum Hardware, Devices & Engineering	
P032	Superconducting qubits showing T ₁ > 100us based on etched trilayer junctions	Elsa	Mannila	Quantum Hardware, Devices & Engineering	
P033	Optomechanical readout for dressed donor spin qubits in silicon	Milla	Männikkö	Quantum Hardware, Devices & Engineering	
P034	T-Centers in Silicon : New Candidate for Spin-Photon Interfaces	Nima	Nematimansur	Quantum Hardware, Devices & Engineering	
P035	Ultrasensitive bolometers using wafer-scale superconducting transistor technology	Ashish	Panigrahi	Quantum Hardware, Devices & Engineering	
P036	Improvement of the Simmons model for tunnel junctions	Ilmo	Räsänen	Quantum Hardware, Devices & Engineering	
P037	A mechanical device engineered for coherent control of spin	Pooja	Sudha	Quantum Hardware, Devices & Engineering	
P038	Multiplexed metallic bolometer for 1550nm single photon detection	Shiling	Yu	Quantum Hardware, Devices & Engineering	
P039	Nonclassical traits in multi-copy state discrimination	Tim	Achenbach	Quantum Information, Communication & Security	
P040	Quantum Resilient Communication and Cybersecurity	Erik	Hieta-aho	Quantum Information, Communication & Security	
P041	Semi-device-independent channel identification with communication matrices	Leevi	Leppäjärvi	Quantum Information, Communication & Security	
P042	Noise or Eavesdropper? Effects on Quantum Instruments	Andrés Damián	Muñoz Moller	Quantum Information, Communication & Security	
P043	Stabilizer-based quantum random access codes	Matti	Raasakka	Quantum Information, Communication & Security	
P044	Classification of security challenges and mitigation approaches in the quantum software engineering	Badhon	Rahman	Quantum Information, Communication & Security	
P045	Hybrid quantum networks - electro-optic microwave to optical transduction	Harald	Schwefel	Quantum Information, Communication & Security	
P046	Experimental high-dimensional multi-qubit Bell non-locality on a superconducting quantum processor	Yousef	Mafi	Quantum Information, Communication & Security	
P047	Playing ‘Hide & Seek’ at Atomic-scale	Zuned	Ahmed	Quantum Materials, Superconductivity & Many-Body Physics	
P048	Nonequilibrium effects in Ising superconductors	Oladunjoye	Awoga	Quantum Materials, Superconductivity & Many-Body Physics	
P049	Josephson anomalous vortices and rotary invariants	Dan	Crawford	Quantum Materials, Superconductivity & Many-Body Physics	
P050	Transport and spectral properties of disordered Rashba superconducting diodes	Maryam	Darvishi	Quantum Materials, Superconductivity & Many-Body Physics	
P051	Critical Current of Flat-Band Superconductors	Aaron	Dunbrack	Quantum Materials, Superconductivity & Many-Body Physics	

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P052	Realizing orbital ordering in a monolayer van der Waals multiferroic	Somesh	Ganguli	Quantum Materials, Superconductivity & Many-Body Physics	
P053	Dipolar Droplets and Supersolids	Ratheejit	Ghosh	Quantum Materials, Superconductivity & Many-Body Physics	
P054	Coherent subgap transport in spin-split Josephson junctions	Alberto	Hijano Mendizabal	Quantum Materials, Superconductivity & Many-Body Physics	
P055	Fluxoid solitons in bottlenecks	Tim	Kokkeler	Quantum Materials, Superconductivity & Many-Body Physics	
P056	Unconventional Josephson Effect in Superconductor-Quantum Spin Liquid Junctions	Curie	Lee	Quantum Materials, Superconductivity & Many-Body Physics	
P057	From polaron formation to superconductivity in flat-band systems	Natale	Matranga	Quantum Materials, Superconductivity & Many-Body Physics	
P058	AETHER: Adaptive Multiconfigurational Simulations of Fermionic Quantum Matter with Long-Range and Cavity-Mediated Interactions	Paolo	Molignini	Quantum Materials, Superconductivity & Many-Body Physics	
P059	Efficient scanning-probe spectroscopy using Wannier-based nonequilibrium Green's functions	Oscar	Moreno Segura	Quantum Materials, Superconductivity & Many-Body Physics	
P060	Entanglement Dynamics in a Second-order Topological Insulator	Mahla	Moridi Farimani	Quantum Materials, Superconductivity & Many-Body Physics	
P061	Theory of supercurrent induced domain wall movement	Risto	Ojajarvi	Quantum Materials, Superconductivity & Many-Body Physics	
P062	Interplay of Skyrmions, Spin-Orbit Coupling, and Superconductivity	Ewa	Swierkosz	Quantum Materials, Superconductivity & Many-Body Physics	
P063	p-wave magnetism and superconductivity	Devesh	Vaish	Quantum Materials, Superconductivity & Many-Body Physics	
P064	Adaptive Multiconfigurational Simulations of Fermionic Quantum Matter with Long-Range and Cavity-Mediated Interactions via the AETHER framework	Taylor	Baird	Quantum Materials, Superconductivity & Many-Body Physics	
P065	European QUantum Infrastructure Project for Gravimetry (EQUIP-G) and the role of the FGI	Mirjam	Bilker-Koivula	Quantum Optics, Photonics, Sensing & Metrology	
P066	Towards Dark State Retention in Weakly Anharmonic Photon-Emitter Pairs	Christopher	Campbell	Quantum Optics, Photonics, Sensing & Metrology	
P067	Microwave Quantum Optics with Cryogenic Thermal Detectors	Qi-Ming	Chen	Quantum Optics, Photonics, Sensing & Metrology	
P068	Magneto-optical imaging of superconducting vortices at sub-Kelvin temperature	Megan	Dransfield	Quantum Optics, Photonics, Sensing & Metrology	
P069	Polarization structures of quantized light in relativistic frames	Behnaz	Fazlpour	Quantum Optics, Photonics, Sensing & Metrology	
P070	Quantum uncertainty in vector-light interference	Martti	Hanhisalo	Quantum Optics, Photonics, Sensing & Metrology	
P071	Optical Properties of Metal-Ion-Mediated Au ₂₅ Nanocluster-Based Assemblies	Hanna	Jääskö	Quantum Optics, Photonics, Sensing & Metrology	
P072	Organic microcavity polariton emission with non-Markovian quantum state diffusion	Timo	Leppälä	Quantum Optics, Photonics, Sensing & Metrology	
P073	Superradiance in Transmon Arrays with Strong Nonlinearity	Brij	Mohan	Quantum Optics, Photonics, Sensing & Metrology	
P074	Generation of Wigner-negative states from a coherently driven qubit in waveguide	Gaetano	Salvemini	Quantum Optics, Photonics, Sensing & Metrology	
P075	Diamond nanoneedles as a platform for multimodal and multifunctional sensing	Elena	Filonenko	Quantum Optics, Photonics, Sensing & Metrology	
P076	Polarization squeezed light from two entangled two-level atoms	Najirul	Islam	Quantum Optics, Photonics, Sensing & Metrology	
P077	Spin-Hamiltonian of the NV ⁻ centre in diamond from first-principles calculations	Alina Helena	Sánchez Gallardo	Quantum Optics, Photonics, Sensing & Metrology	