

SIQEW 2025 POSTER ASSIGNMENTS

No.	First name	Last name	Affiliation	Title
1.1	Takeru	Utsugi	Hitachi, Ltd.	Circular-Modulated Concatenated Continuous Driving: Robust Spin Control without Rotating-Wave Approximation in the Second Rotating Frame
1.2	Ryuji	Ukai	Hitachi, Ltd. Research & Development Group	Stabilization of spin resonance frequency by feedback control of Stark shift
1.3	Yusuke	Sato	Department of Electrical and Electronic Engineering, Institute of Science Tokyo, Japan	Coherent Control of a Silicon Hole Spin Qubit Using Concatenated Continuous Driving
1.4	Hudaiba	Soomro	University of Wisconsin-Madison	High fidelity EDSR in a disordered Si/SiGe Wiggly Well
1.5	Xander	Peetroons	University of Cambridge and Hitachi Cambridge Laboratory	High fidelity control in a nat-Si-MOS quantum dot using a 300 mm industrial process
1.6	Minyoung	Kim	University of Wisconsin-Madison	Efficient and robust hopping gates in Si/SiGe quantum dots with enhanced spin-orbit coupling
1.7	Hyeongyu	Jang	Seoul National University	Demonstration of multiple-qubit noise suppression in a four-qubit silicon device
1.8	Guido	Burkard	University of Konstanz	Fast quantum gates for exchange-only qubits
1.9	Giovanni	Oakes	Quantum Motion	A cloud-accessible four-qubit electron spin quantum processor in a 300 mm metal-oxide-semiconductor process
1.10	Hideaki	Yuta	The University of Osaka	Resonant ST oscillation in low magnetic field and noisy nuclear environment
1.11	Yusuke	Kanno	Hitachi Ltd.	Simple and fast silicon-based quantum dot/bit simulator for large-scale quantum computing
1.12	Jakob	Walsh	Institut für Experimentelle und Angewandte Physik, Fakultät für Physik, Universität Regensburg	Using a Coulomb blockade island as a reservoir for qubit dots
1.13	Eric	Switzer	National Institute of Standards and Technology	Revealing Correlated Electron Behavior in Silicon Dopant Arrays through Spin-Resolved Transport
1.14	Joshua	Lou	University of Maryland	Advances in control and characterization of six dot HRL SLEDGE devices from the Qubits for Computing Foundry
1.15	Conor	Power	University College Dublin	NMOS and PMOS Tunable Quantum Dots Fabricated on FDX-22 Process
1.16	Jonathan	Baugh	University of Waterloo	Wiring-Efficient Control and Simulation of Silicon Spin Qubit Arrays Driven by Global ESR
1.17	Yuto	Kizawa	Kobe University	Robust Automatic Tuning of Silicon Quantum Dots Using CNN-assisted Bayesian Optimization
1.18	Fabian	Hader	Peter Gruenberg Institute - Integrated Computing Architectures (ICA / PGI-4), Forschungszentrum Juelich GmbH	Towards Scalable Cryogenic Charge Transition Detection for Automated Quantum Dot Tuning
1.19	Tyler	Kovach	University of Wisconsin-Madison	Scalable Autotuning of High-Temperature Quantum Dot Spin Qubits
1.20	Anantha	Rao	University of Maryland	Autonomous active monitoring and noise spectroscopy of two-dimensional quantum dot devices
1.21	Tara	Murphy	University of Cambridge, Quantum Motion Technologies	Bayesian Optimisation for the Automatic Tune up of RF Sensor Dots for Silicon Quantum Dots
1.22	Justyna	Zwolak	NIST	Calibrating the Future: Standardization Challenges and Strategies for Quantum Dot Arrays
1.23	Jonathan	Wyrick	National Institute of Standards and Technology	STM-Fabricated Single-Dopant Structures in Silicon for Quantum Photonics and Sensing
1.24	Quim	Torrent Nicolau	University of Twente	Characterization of single 209-Bi donors in Si nanoelectronic devices

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1.25	Kieran	Spruce	UCL	Fabrication of arsenic-in-silicon single-electron transistors using scanning tunnelling microscopy hydrogen resist lithography
1.26	Ivana	Bosnjak	University of Twente	Towards Gallium acceptor qubits in silicon
1.27	Mark	van Blankenstein	UNSW	Encoded cat qubit in a high spin nucleus in Silicon
1.28	Yan	Li	University of Maryland	Onsite Bias Effects in Dopant-Based Quantum Dot Arrays for Quantum Simulation
1.29	Garnett	Bryant	NIST	Probing dopant-based quantum simulators: Getting faster than the steady state limit
1.30	Alicia	Lieng	UNSW Sydney	Thermal modelling of on-chip heating in silicon quantum devices
1.31	Bilal	Kalyoncu	Qblox BV	Spin shuttling with gapless scheduling of real-time parametrized pulses
1.32	Di	Xu	Quantum Motion	Compact superconducting vector mini-magnet for spin qubit experiments
1.33	Aaron	Chronister	HRL Laboratories	Development of mK CMOS Multiplexer for Increased Quantum Device Test Throughput
1.34	Tien-Ho	Chang	National Tsing Hua University (NTHU)	Fabrication and measurement of Ge quantum dot devices with low noise, fast readout, and simple fabrication
1.35	Biel	Martinez i Diaz	CEA Grenoble	On the Trade-Off Between Qubit Homogeneity and Efficient Electrical Control of Hole Spin Qubits in Germanium
1.36	Nathaniel	Vegh	McGill University, Nanoacademic Technologies	First-Principles Band Alignment in Strained Si/Si _{1-x} Ge _x and Ge/Si _{1-x} Ge _x Heterostructures
1.37	Nick	Kolev	University College London	Machine Learning Guided Fabrication of Single-Atom Devices in Hydrogen Resist Lithography with Arsenic Dopants
1.38	Joshua	Pomeroy	National Institute of Standards and Technology	Single electron transistors made using a single gate with varying width
1.39	Edwin	Acuna	HRL Laboratories	Qubits for Computing Foundry at HRL
1.40	Mark-yves	Gaunin	Joint Quantum Institute (UMD/NIST)	Automating the STM Fabrication of Silicon Based Quantum Devices Using Machine Learning and Computer Vision
1.41	Preston	Valiant	Sandia National Laboratory	Predicting The Identity of Intermediate Range Order at The Si:SiO ₂ Interface via Interfacial Energies
1.42	Jesus	Cifuentes	Dirac and UNSW	Impact of electrostatic crosstalk on spin qubits in dense CMOS quantum dot arrays
1.43	Gorka	Aizpurua	Quantum Motion	A superinductor in a deep sub-micron integrated circuit
1.44	James	Owen	Zyvx Labs	Beyond Dopant Placement: Bringing the Precision of STM Lithography to other Si Quantum Devices
1.45	Esteban	Rodriguez-Mena	CEA Grenoble	Hole spin qubits in unstrained Germanium layers
1.46	Pauline	Drexler	Institut für Experimentelle und Angewandte Physik, Fakultät für Physik, Universität Regensburg	Proximity-induced superconductivity in GeSi/Ge heterostructures with in situ-grown aluminum
1.47	Isobel	Clarke	UCL, Quantum Motion	Spin readout and integrated superinductors in 22nm FDSOI
1.48	Savi	Apicella	UNSW	Investigating the effects of eddy currents in quantum devices for global qubit control
1.49	Michael	Stewart	NIST	Noise and Drift Budgets for Scaling Quantum Devices
1.50	Brighton	Coe	University of Wisconsin Madison	Correlated offset charge jumps in Si/SiGe quantum dots
1.51	Hanseo	Sohn	Seoul National University	Probing position-dependent noise spectrum of silicon spin qubits near vanishing decoherence gradient
1.52	Minh	Nguyen	Sandia National Laboratories	Developing metrics to accelerate ab initio defects studies in quantum devices
1.53	Han Na	We	Forschungszentrum Jülich PGI-11	Efficient quantum dot tuning with ray-based algorithms

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1.54	David	Jonas	University College London	Single electron transport and stray dopant signatures in arsenic-doped silicon devices probed by direct current and radio-frequency reflectometry measurements
1.55	John	Caporaletti	UMBC	Proposed five-electron charge quadrupole qubit
1.56	Frédéric	Quenneville	École Polytechnique Montréal	Gate-tunable light hole spin-orbit interactions in group IV planar systems
2.1	Benjamin	Faktor	UCLA Department of Mathematics	Optimal transport-based unfolding of qubit readout noise
2.2	Tatsuya	Matsuda	Institute of Science Tokyo	Toward noise correlation-based uninterrupted feedback of a silicon quantum dot
2.3	Leah	Tom	University of California, Los Angeles	Spatial Triangulation of Two-Level Fluctuators in Si/SiGe Quantum Dot Devices
2.4	Kaiwen	Zheng	Washington University	Surface Morphology Assisted Trapping of Strongly Coupled Electron-on-Neon Charge States
2.5	Tameem	Albash	Sandia National Laboratories	Temporal Coarse Graining for Classical Stochastic Noise in Quantum Systems
2.6	Ambarish	Ghosh	IISc Bangalore	Imaging Wigner crystallization on flat and curved charged helium surfaces under electrical excitation
2.7	Austin	Schleusner	Michigan State University	Toward Coupling Electrons on Helium to Superconducting Qubit Systems
2.8	Gauri	Goenka	UNSW	Germanium Nuclear Spin Coupled to SiMOS Quantum Dots
2.9	Shan	Zou	University of Notre Dame	Measuring Electron Spins on Solid Neon for Quantum Technology
2.10	Silas	Hoffman	Laboratory for Physical Sciences	Resolving Andreev spin qubits in germanium-based Josephson junctions
2.11	Marcus	Goffage	University of New South Wales	Decoherence of Majorana Qubits by $1/f$ Noise
2.12	Gordian	Fuchs	Princeton University	Efficient, long-range shuttling of electrons bound to liquid helium
2.13	Matthew	Schulz	Princeton University	Cooling Electrons Bound to Superfluid Helium with Resistive Metallic Gates
2.14	Daniel	King	University of Wisconsin–Madison	Delta axis spectroscopy: a method to measure excited state tunnel couplings
2.15	Stephen	Lyon	Princeton University	Spin Coherence Calculations for Mobile Electrons Bound to Superfluid Helium
2.16	Jaemin	Park	Seoul National University	Investigating Qubit Operation under Switched Gate Roles
2.17	Conor	Power	University College Dublin	RF Reflectometry Modelling for Admittance Extraction in Quantum Dot Arrays
2.18	Rocky	Su	UNSW	Observing quantum chaotic kicked top dynamics on a high-spin nuclear in Silicon
2.19	Phillip	Kirwin	The University of British Columbia	Progress on microwave-optical photon conversion with silicon color centers
2.20	Yueheng	Shi	Stanford University	Engineering Solid-Neon Growth for Coherent Electron Qubits
2.21	Jose	Alvez	University of Oxford	Quantum dot as a perceptron for future learning machines
2.22	Satoru	Akiyama	hitachi	Coupled-ringed Qubit Array Arrangement for Scalable Fault-tolerant Quantum Computer
2.23	Owen	Eskandari	University of Wisconsin–Madison	Omnidirectional shuttling to avoid valley excitations in Si/SiGe quantum wells
2.24	Pooja	Yadav	National Institute of Standards and Technology	Variability in Device Parameters for Parallel Operation of Single Electron Pumps
2.25	Heejun	Byeon	EeroQ Corporation	Efficient shuttling of electrons on helium using a CCD-like architecture.
2.26	Chih-Hwan	Yang	UNSW Sydney	Interplay of Zeeman Splitting and Tunnel Coupling in Coherent Spin Qubit Shuttling
2.27	Kenichiro	Senda	Osaka__Univ.	Optimizing Spin Qubit High Velocity Shuttling in Si/SiGe Simulation Including Random Alloy Disorder
2.28	Alessandro	Chessari	CEA Grenoble	Unifying Floquet Theory of Longitudinal and Dispersive Readout
2.29	Harry	Kang	MIT	Remote entangling gates for spin qubits in quantum dots using a charge-sensitive superconducting coupler
2.30	Andrii	Semenov	Equal1	Simulations of spin-spin dispersive coupling mediated by a superconducting resonator in terms of the Jaynes-Cummings ladder model
2.31	Holly	Stemp	Massachusetts Institute of Technology	A co-designed control and measurement architecture for hybrid superconductor-semiconductor qubit systems
2.32	Nikki	Ebadollahi	University of Maryland	A Photonic Approach to Spin Qubit Readout

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2.33	Sabastian	Atwood	National High Magnetic Field Laboratory	Multiphoton State Transitions in a Multilevel Quantum Spin System
2.34	Mohammad	Khalifa	University of British Columbia	Robust microwave-optical photon conversion using cavity modes strongly hybridized with a color center ensemble
2.35	Rio	Fukai	The University of Osaka	Development of a fiber-based optical system for quantum state transfer from single photon polarization to single hole spin
2.36	Rusko	Ruskov (Hristov)	Laboratory for Physical Sciences, University of Maryland, Physics	Fast readout of a hopping Ge-hole spin qubit via dynamical longitudinal coupling to a superconducting resonator
2.37	Vanita	Srinivasa	University of Rhode Island	Enabling Modularity for Spin Qubits via Drive-Tunable Entanglement
2.38	Dario	Denora	QuTech - TU Delft	Coherent spin operation in strained germanium double quantum well devices
2.39	Xun Yao	Luo	University of Cambridge and Hitachi Cambridge Laboratory	Enhancement of electron spin resonance Rabi Frequency via Spin-Orbit Near Anticrossing in n-Type Silicon-MOS Quantum Dot
2.40	Alysa	Rogers	University of Wisconsin-Madison	Tuning Valley Splitting in a 5% Ge Quantum Well
2.41	Jiawei	Wang	University at Buffalo -- SUNY	Modeling Ge hole spin with finite barriers
2.42	Omadillo	Abdurazakov	The University of Texas at El Paso	Effects of the spin-orbit coupling and confinement geometry on germanium hole spin qubits
2.43	Bart	Raes	Imec	Excited States, Exciting Physics: SiMOS spin Qubits
2.44	Stefano	Bosco	QuTech, TU Delft	Harnessing Large Spin-Orbit Interactions for Next-Gen Hole Spin Qubits.
2.45	Mitchell	Brickson	Sandia National Laboratories	Exploring the influence of atomistic alloy disorder on exchange coupling between electron spins in Si/SiGe
2.46	Scott	Liles	University of New South Wales	From Mobility to Fidelity: Demonstrating High-Quality Hole Spin Qubits in a Natural Silicon Foundry Platform
2.47	Daniel	Halverson	University of New South Wales	Feedback and Pulse Engineering with Hole Spin Qubits
2.48	Benjamin	Woods	University of Wisconsin - Madison	Statistical characterization of valley coupling in Si/SiGe quantum dots via g-factor measurements near a valley vortex
2.49	Angus	Russell	University of Cambridge, Quantum Motion Technologies	From RF Response to SOC Parameters: Simulating Magnetospectroscopy of Double Quantum Dots
2.50	Arthur	Lin	Joint Quantum Institute, University of Maryland and NIST	Reduction of hole state g-factor anisotropy using parabolic Ge/SiGe quantum wells
2.51	Emily	Joseph	University of Wisconsin-Madison	Enhancing Valley Splitting in Si Quantum Dots Using Deposited Stressors for Shear Strain in Wiggly Well Heterostructures
2.52	Christian	Binder	Oxford University	Effective 2D Envelope Function Theory for Silicon Quantum Dots
2.53	Curt	Richter	NIST	Measurements to predict qubit performance
2.54	Federico	Poggiali	QuTech - TU Delft	A spin qubit pair in germanium with matching g-tensors and long coherence time
2.55	Patrick	Daoust	École Polytechnique Montréal	Nuclear spin-free $^{70}\text{Ge}/^{28}\text{Si}^{70}\text{Ge}$ heterostructures
2.56	Yasuo	Oda	UMBC	Suppressing Si valley excitation and valley-induced spin dephasing for long-distance shuttling
2.57	Haiqi	Zhou	Department of Physics and Astronomy, University of Pennsylvania	Towards excited state control and readout of quantum dot spin qubits via THz radiation