

sess.	loc.	Subject Area	Title
1	1	1D & 2D dot arrays (3+ dots)	Measurements of a six dot HRL SLEDGE device from the Qubits for Computing Foundry
1	2	1D & 2D dot arrays (3+ dots)	Tunnel coupling control of FDSOI quantum dots in the few-electron regime
2	1	1D & 2D dot arrays (3+ dots)	Local control of interface charge density in Si/SiGe quantum dot devices through in-situ illumination
2	2	1D & 2D dot arrays (3+ dots)	Charge sensing in a FDSOI dual-nanowire hole-qubit device
2	3	Automated tuning	Ray-based classification techniques for scalable quantum-dot autotuning
1	3	Control and gates (1 to 2 qubits)	RF-Reflectometry Measurements of Charge Transitions in a Quantum Dot Array Fabricated on FDX-22 Process
1	4	Control and gates (1 to 2 qubits)	Exchange interactions in Germanium hole spin qubits
1	5	Control and gates (1 to 2 qubits)	Using the Wiggle Well to generate fast EDSR in Si/SiGe: valley, spin-orbit coupling, and alloy disorder induced effects
1	6	Control and gates (1 to 2 qubits)	Impact of biased cooling on the operation of undoped Si/SiGe field-effect devices
1	7	Control and gates (1 to 2 qubits)	Characterization of p-type CMOS Quantum Dot Array Devices with J-gates
1	8	Control and gates (1 to 2 qubits)	Fast, Pulse-Based State Preparation on Silicon Quantum Processors
1	9	Control and gates (1 to 2 qubits)	Analysis and 3D TCAD simulations of EDSR in an industrially-compatible FD-SOI device.
1	10	Control and gates (1 to 2 qubits)	High-fidelity two-qubit gates of hybrid superconducting-semiconducting singlet-triplet qubits
1	11	Control and gates (1 to 2 qubits)	Composed SWAP gate in silicon spin qubits
1	12	Control and gates (1 to 2 qubits)	Shuttling-based holonomic quantum gates for semiconductor spin qubits
1	13	Control and gates (1 to 2 qubits)	Measurement-Based Methods of State Manipulation in Encoded Spin Qubits
2	4	Control and gates (1 to 2 qubits)	Systematic high-fidelity operation and transfer for semiconductor spin-qubits
2	5	Control and gates (1 to 2 qubits)	Symmetrically controlling exchange coupling with only plunger gate
2	6	Control and gates (1 to 2 qubits)	Nonadiabatic geometric gates in a planar Germanium quantum dot device
2	7	Control and gates (1 to 2 qubits)	Numerical Noise Simulation Based on Gate Set Tomography
2	8	Control and gates (1 to 2 qubits)	A diverse set of two-qubit gates for spin qubits in semiconductor quantum dots
2	9	Control and gates (1 to 2 qubits)	Benchmarking Single-Qubit Gate with 99.99% Fidelity via Pulse Shaping in a Five-Qubit Spin Qubit Device
2	10	Control and gates (1 to 2 qubits)	Fidelity of Strongly Driven Electric Dipole Spin Resonance
2	12	Control and gates (1 to 2 qubits)	Measurement Techniques for Silicon Qubits
2	13	Control and gates (1 to 2 qubits)	Dressed singlet-triplet qubit in planar germanium
2	14	Control and gates (1 to 2 qubits)	Controlled rotations of hot hole spin qubits
2	15	Control and gates (1 to 2 qubits)	Characterization of SiMOS quantum dots fabricated by advanced semiconductor fab
1	14	Cryo-electronics	RF Diode Thermometry
1	15	Cryo-electronics	Semiconducting qubits with embedded control and readout cryo-CMOS circuits
1	16	Cryo-electronics	A compact superconducting solenoid for spin qubit experiments
1	18	Cryo-electronics	Interfacing Qubits and Control/Readout Electronics using Cryo-CMOS FD-SOI Technology
2	16	Cryo-electronics	22FDX® as a platform for qubit devices
2	17	Cryo-electronics	Toward the approach of passive photonic link in quantum computers
2	19	Cryo-electronics	Distributed Bragg Reflectors (DBRs) for cryo-packaging using cryo-electronics
2	20	Cryo-electronics	A qubit chip implementation technique with an active silicon interposer enabling signal control and acquisition near silicon qubits

sess.	loc.	Subject Area	Title
1	19	Dopants & nuclear spin qubits	Towards Gallium acceptor spin qubits
1	20	Dopants & nuclear spin qubits	Characterization of single 209-Bi donors in Si nanoelectronic devices
1	21	Dopants & nuclear spin qubits	Detecting quantumness in the uniform precession of a single nuclear qubit
1	22	Dopants & nuclear spin qubits	Sensing at the Heisenberg Limit with a high-spin Donor in Silicon
2	21	Dopants & nuclear spin qubits	Quantum Fredkin gate in nuclear spin registers: a native implementation
2	22	Dopants & nuclear spin qubits	Scalable donor-based electron spin qubit unit in silicon
2	23	Dopants & nuclear spin qubits	Excitation Spectra of Phosphorus-, Arsenic- and Antimony-Bound Excitons in Strained Si-28
2	24	Dopants & nuclear spin qubits	Double P dopants in Si: Wave functions and spatial metrology from STM images
1	23	Fabrication	Influence of device fabrication methods on transport properties of Ge/SiGe heterostructures
1	24	Fabrication	Gate-defined quantum point contacts in a germanium quantum well
2	25	Fabrication	Locally Etched Back-gate Contact for Spin Qubit Devices in Si/SiGe
2	26	Fabrication	On-chip hybrid Coulomb-blockade thermometry
1	25	Large-scale characterization	Quantum Dot level characterization of industrial Si MOS spin qubit devices
1	26	Large-scale characterization	Parallel Silicon-charge-pump architecture, with operation temperature of above and below liquid-helium temperature
2	27	Large-scale characterization	Coherent errors in spin-qubit quantum error correction caused by quasistatic phase damping
2	28	Large-scale characterization	Fast cryogenic probing of quantum dot spin qubit devices
1	27	New directions	A study of symmetry-protected topology of surfaces of maximum entanglement in Si, Ge and GaAs for spin-qubit architectures
1	28	New directions	Neural networks for quantum environment characterization and shadow tomography of silicon spin qubits
1	29	New directions	Thermal engineering of silicon quantum-dot array structures
1	30	New directions	Magneto-spectroscopy of Elongated Jellybean Dots in Silicon
1	31	New directions	Proposal of 3D stacked spin qubit system
1	32	New directions	Ge/Si Nanowires: A Platform for Superconducting Qubits
1	33	New directions	Agnostic Phase Estimation
1	35	New directions	Low-Distance Surface Code Emulation for Silicon-based Spin Qubits
2	29	New directions	Design and Testing of an Optimized Experimental Setup for Global Control of SiMOS Spin Qubits
2	31	New directions	Two-stage magnetic shielding for hybrid quantum devices in an adiabatic demagnetization refrigerator
2	32	New directions	Realization of hybrid devices in strained germanium quantum well heterostructures, proximitized by in-situ grown epitaxial aluminum
2	33	New directions	Prospects for Strong Optical Coupling between Single Erbium Ions and Silicon Photonic Cavities
2	34	New directions	Reinforcement Learning in Bayesian Hamiltonian Tracking for Dephasing-Limited Spin Qubits
2	35	New directions	Transport measurements in p/n doped hexagonal SiGe nanowires
2	36	New directions	Characterizing GHz surface acoustic wave resonators as a quantum bus

sess.	loc.	Subject Area	Title
1	37	Noise, quality metrics & materials	Impact of disorder on the charge and spin properties of hole spin qubits in Ge
1	39	Noise, quality metrics & materials	Materials for spin qubits, on an off the beaten track
1	40	Noise, quality metrics & materials	Singlet-Triplet Qubit in a Low Charge Noise FdSOI Unit Cell
1	41	Noise, quality metrics & materials	Highly enriched Si-28 by localised focused ion beam irradiation for silicon spin quantum technologies
1	42	Noise, quality metrics & materials	A silicon semiconductor vacuum: donor spin coherence in isotopically engineered Si-28
1	43	Noise, quality metrics & materials	Proposed real-time charge noise measurement via valley state reflectometry
1	44	Noise, quality metrics & materials	Gate Materials and Process Variations: Exploring Their Influence on Transport Properties in Silicon MOS Devices
2	37	Noise, quality metrics & materials	Impact of interface traps on charge noise and low-density transport properties in Ge/SiGe heterostructures
2	38	Noise, quality metrics & materials	Optimising the quality of gate dielectrics in Ge hole-spin qubit devices
2	39	Noise, quality metrics & materials	Design of voltage-controlled pulses for exchange gate operations on semiconductor spin qubits with optimal fidelities in the presence of $1/f^\alpha$ charge noise using fractional calculus
2	40	Noise, quality metrics & materials	Polarization-assisted QD formation by integrated CMOS-compatible HfO <sub>2</sub> -based ferroelectric gate oxide: a study at cryogenic temperatures
2	41	Noise, quality metrics & materials	Effects of optical illumination on Sb-donor quantum devices
2	42	Noise, quality metrics & materials	Description of Non-Markovian Noise via Instrument Get Tomography
2	43	Noise, quality metrics & materials	Optimization of Ge/Si core/shell nanowire qubit devices
2	45	Noise, quality metrics & materials	Modeling a charge fluctuator in Si/SiGe quantum dots
1	46	Quantum simulation	Calibration of the Cryogenic Semiconductor Model for the Simulation of the Quantum Dots Fabricated on FDX-22 Process
1	47	Quantum simulation	Tailoring quantum error correction to spin qubits
1	48	Quantum simulation	A Digital Twin for Quantum Dot Arrays
1	49	Quantum simulation	Quantum simulation of a 2D Fermi-Hubbard model with silicon quantum dots in Si/SiGe
2	46	Quantum simulation	Probing a quantum phase transition and triplet propagation in Ge quantum dot ladder
2	47	Quantum simulation	Running a six qubit algorithm on a silicon spin qubit array
2	48	Quantum simulation	Extracting information from analog quantum simulation: Probing quantum states and dynamics one electron at a time
2	49	Quantum simulation	Stabilizing a discrete time crystalline phase in an array of silicon spin qubits.
2	50	Quantum simulation	Measuring long-range spin correlation in spin wave modes prepared in gate-defined quantum dot arrays
1	50	Qubit array (3+ qubits)	Micro- and nanomagnet stray field investigation for manipulation of spin qubits
1	51	Qubit array (3+ qubits)	Universal control and benchmarking of four singlet-triplet qubits
1	52	Qubit array (3+ qubits)	Low-frequency stability of semiconducting spin qubits in silicon
2	52	Qubit array (3+ qubits)	High-fidelity two-qubit gate and teleportation with distant spin qubits in silicon
1	53	Readout	Gate-Dispersive Readout of a Ge/Si Core/Shell Nanowire Quantum Dot at Perfect Impedance Matching
1	54	Readout	Analysis of a Simultaneous Gate-Based Reflectometry Readout of Multiple Spin Qubits Using a Multi-Tone Frequency Generator
1	56	Readout	Floquet theory of longitudinal readout with cavity photons
1	58	Readout	Challenges and solutions for RF reflectometry techniques in accumulation mode silicon MOS devices.
1	59	Readout	Split-gate Radio-Frequency Reflectometry in Si-MOS gate-defined Quantum Dots
2	53	Readout	An inductively coupled NbTiN resonator for gate dispersive charge sensing of SiMOS quantum dots
2	54	Readout	Parametric amplifier of high kinetic inductance multiple frequency cavity
2	56	Readout	Theory of charge-sensing-based noisy qubit readout of semiconductor qubits
2	57	Readout	Improving Radio-Frequency Readout of Hole Spins in a Ge/SiGe Linear Array with a Screening Layer Approach
2	58	Readout	Characterizing different readout schemes in Si:P donor/dot devices

sess.	loc.	Subject Area	Title
1	60	Shuttling	Hole Flying Qubits in Quantum Dot Arrays
1	61	Shuttling	2D Spin-Qubit Architecture for Surface Code Error Correction using Multi-Electron Couplers
1	62	Shuttling	Charge shuttling in a FDSOI quantum dot array
1	63	Shuttling	Conveyor-mode shuttle tomography for potential disorder mapping of a quantum bus in Si/SiGe
1	64	Shuttling	Numerical simulation of coherent spin-shuttling in silicon devices across dilute charge defects
1	65	Shuttling	Coherent electron-spin shuttling for mapping valley splitting in Si/SiGe quantum devices
2	59	Shuttling	Towards 2D connectivity in a scalable electron spin qubit architecture in Si/SiGe
2	60	Shuttling	Toward shuttling a hole spin across a germanium five quantum dot linear array
2	61	Shuttling	Optimal Control of Conveyor-Mode Electron Shuttling in a Si/SiGe Quantum Bus in the Presence of Charged Defects
2	62	Shuttling	Dynamics of spatially separated spin singlet: from double quantum dot to long-distance shuttling
2	63	Shuttling	Protecting quantum information during spin shuttling against the noise produced by random sheet.
2	64	Shuttling	Simulation of spin shuttling in Si-MOS quantum dots
1	66	Spin-photon coupling	Flopping-mode spin qubit in driven germanium and silicon planar double quantum dot
1	67	Spin-photon coupling	Pulsed electron spin resonance protocols for quantum memory applications
1	68	Spin-photon coupling	Spin circuit QED in the time-domain
1	69	Spin-photon coupling	Triple quantum dot coupled to tunable Josephson junction array resonator in Si/SiGe
2	65	Spin-photon coupling	Singlet-triplet Ge hole spin qubit quantum measurement and entangling rates via dynamical longitudinal coupling
2	66	Spin-photon coupling	Optimizing quantum dot configurations for enhancing spin-photon interaction
2	67	Spin-photon coupling	Silicon color center electroluminescence and prospects for photonic readout of silicon spin qubits
2	69	Spin-photon coupling	Drive-enabled tunable entanglement between spatially separated spin qubits
1	70	Valleys or hole physics	Optimized field-effect control of 2D hole gases in shallow Ge/GeSi quantum wells
1	71	Valleys or hole physics	In situ-grown superconducting thin films on surface-near GeSi/Ge quantum wells for gate-tunable superconducting quantum circuits
1	72	Valleys or hole physics	Valley physics and its influence on shuttling of spin qubits in Si/SiGe heterostructures
1	73	Valleys or hole physics	Coulomb Blockade Spectroscopy of Holes in Ge/SiGe with a Charge Sensor
1	74	Valleys or hole physics	Leveraging the tunability of hole spin qubits
1	76	Valleys or hole physics	Single-Spin Polarimetry with Holes in Silicon
1	77	Valleys or hole physics	Exchange-driven two-hole spin qubit in Germanium
2	70	Valleys or hole physics	Multiscale and multiphysics simulation of hole spin qubits in silicon: A pathway to model realistic devices
2	71	Valleys or hole physics	Effect of roughness in planar Ge hole spin qubit: device specific theoretical modelling of hole quantum dot in Ge/SiGe heterostructures
2	72	Valleys or hole physics	Towards Optimization of Valley Splitting in Si/SiGe Quantum Wells
2	73	Valleys or hole physics	Germanium quantum wells as a novel material platform for spin qubits
2	74	Valleys or hole physics	Enhanced sweet spot robustness in hole flopping mode qubits
2	75	Valleys or hole physics	Coherent hole QD – photon interface for strong charge-photon coupling and probing strongly-correlated states
2	76	Valleys or hole physics	Random telegraph noise in planar Ge hole qubits: sweet spots versus hot spots
2	77	Valleys or hole physics	Electrically Driven Hole Spin Resonance Detected with Charge Sensor in a Planar Si CMOS Structure
2	78	Valleys or hole physics	Probing g-factor anisotropy and spin-orbit effects towards reproducible hole-spin qubits in silicon
2	79	Valleys or hole physics	A Qubit with Simultaneously Maximized Speed and Coherence