IQ ST Integrated Quantum Science and Technology

IQ ST Research Pitches

2 parallel sessions A and B

Time	Speaker	Title of the pitch
Session A1: Quantifying and controlling quantumness		
11:15-11:22	Lukas Arnold (Uni. Stuttgart)	EPR Imaging with Atomic Resolution
11:22-11:29	Moritz Quinke (Uni. Ulm)	A common sample platform to relate atomic defects to measurements on 2D heterostructure devices
11:29-11:36	Fabian Ziesel (Uni. Ulm)	Spin torque in a Josephson junction between two superconducting magnetic impurity states
11:36-11:43	Marian Rockenhäuser (Uni. Stuttgart)	Experiments with laser-cooled molecules
11:43-11:50	Haonan Huang (Max Planck Inst.-FKF)	Quantum phase transitions in Yu-Shiba-Rusinov states
11:50-11:57	Manuel Jäger (Uni. Ulm)	Measurement of Tan's contact in the BCS-BEC crossover of a strongly interacting Fermi gas
Session A2: Quantum Computing on unconventional platforms		
11:57-12:04	Benyamin Shnirman (Uni. Stuttgart	Design and fabrication of silicon nitride integrated nanophotonics for enhancing atom-light interaction
12:04-12:11	Sebastian Brandhofer (Uni. Stuttgart)	Optimized entanglement generation on IBM quantum processors
12:11-12:18	Philipp Karl (Uni. Stuttgart)	Tunable near and mid-infrared polarization-independent Niobium based plasmonic perfect absorber photodetector
12:18-12:25	Artur Skljarow (Uni. Stuttgart)	Engineering dipolar interactions with nanophotonics
12:25-12:32	Florian Meinert (Uni. Stuttgart)	Quantum Simulation with Circular Rydberg Atoms
Session B1: Quantum Sensing/Biosensing		
11:15-11:22	Aparajita Singha (Max Planck Inst.-FKF)	Charge state stabilisation in shallow NV-centers
11:22-11:29	Mirko Rossini (Uni. Ulm)	Decoherence in DNA-inspired tight-binding lattices
11:29-11:36	Martin Korzeczek (Uni. Ulm)	Towards on-chip-NMR: Polarisation sequences for nuclear hyperpolarisation
11:36-11:43	Raphael Nold (Uni. Stuttgart)	A Quantum Optical Microphone in the Audio Band
11:43-11:50	Michael Klaus Koch (Uni. Ulm)	Integrated Magnetometry Platform with Waveguide-Assisted Detection
11:50-11:57	Sogol Khanof (Uni. Stuttgart)	Integrated circuit electronics for quantum control and sensing: HBT based cryogenic VCO design
11:57-12:04	Tobias Klotz (Swabian Instruments)	Sub-ps timing resolution: High precision TDC for quantum sensing
12:04-12:11	Mario Winkler (Uni. Stuttgart)	Click chemistry as versatile tool for developing robust modular quantum sensing platforms
12:11-12:30	**Session B2: Introducing the teaching teachers stipend program** (Prof. Ronny Nawrodt, Uni. Stuttgart)	