

NCCR SPIN Annual Meeting 2021

Monday, August 30, 2021

Time	Talks 15' + 5'	Speaker	Location / Chairs
	Individual Travel arrangements		
12:57	Arrival Train at Pontresina Station		
13:30	Buffet Lunch (open until ca. 14:30)		Rondo Convention Center
13:57	Arrival Train at Pontresina Station		
14:30	Welcome	Dominik Zumbühl (Basel)	Rondo Convention Center Sela Arabella
	Hole Spins: finFETs		
14:40	Fabrication of finFET Spin Qubit	Noelia Vico Trivino (IBM)	Chair: Zumbühl
15:00	Spin qubits in silicon FinFETs	Simon Geyer (Basel)	
15:20	TCAD Simulation of FinFETs for Scalable Si Quantum Computing	Andreas Schenk (ETHZ)	
15:40	Break (30 min)		
16:10	Hole spin qubits in Si and Ge quantum dots: Ultrafast gates and noise resilient qubits	Stefano Bosco (Basel)	Chair: Klinovaja
16:30	Atomic force microscopy to characterize quantum dots	Ernst Meyer (Basel)	
16:50	Poster flash-intro		Rondo Convention Center Sela Arabella
17:15	Poster session (Apero from 17:45)		
17:30	Executive Committee Meeting		Meeting Room "Muragl-Laret"
18:30	Dinner		Hotel Saratz, Jugendstilsaal
	Electron Spins		
20:40	Silicon-On-insulator devices for future high-scale qubit integration	Adrian Ionescu (EPFL)	Chair: Poggio
21:00	Stray-field gradient optimization for fast electron spin manipulation	Michele Aldeghi (IBM)	
21:20	Scanning Nanowire Quantum Dot	Luca Forrer (Basel)	
21:40	Spin control in nanowire-devices with ferromagnetic sidegates	Andreas Baumgartner (Basel)	
22:00	Evening reception		Rondo Convention Center

Tuesday, August 31, 2021

Time	Talks 15' + 5'	Speaker	Location / Chairs
07:30	Breakfast		Hotel
	Hole Spins: Ge/Si		
09:00	Orientation control over growth direction in relation to catalyst density	Nicolas Forrer (Basel)	Chair: Scarlino
09:20	Selective area epitaxy of Germanium nanowire networks	Santhanu Ramanandan (EPFL)	
09:40	Electrically tuneable hole spin qubits in Ge/Si core/shell nanowires	Leon Camenzind (Basel)	
10:00	Coupling a Ge/Si quantum dot to a high-impedance resonator	Jann Ungerer & Pierre Chevalier-Kwon (Basel)	
10:20	Break (30 min)		
10:50	Cryo-CMOS control of spin and superconducting qubits	Edoardo Charbon (EPFL)	Chair: Loss
11:10	Spin qubits in planar germanium	Andrea Hofmann (Basel)	
11:30	Bilayer graphene quantum dots	Klaus Ensslin (ETHZ)	Chair: Riel
11:50	Zürich Instruments and the Race for the Quantum Computer (30' + 10')	Sadik Hafizovic, CEO & Co-founder, Zürich Instruments AG	
12:30	Group Photo and lunch bags		Rondo Convention Center
12:30	Hikes		
16:30	Return from hikes		
17:30	Poster session (Apero from 17:45)		Sela Arabella
17:30	SPIN General Assembly (Full and Associate Members)		Meeting Room "Muragl-Laret"
18:30	Conference Dinner		Hotel Saratz, Jugendstilsaal
20:40	Young Researchers forum AND posters (in parallel)		Rondo Convention Center
21:20	Piano Concert: Lukas Loss	www.lukasloss.ch	Sela Arabella
22:00	Evening reception		Rondo Convention Center

Wednesday, September 1, 2021

Time	Talks 15' + 5'	Speaker	Location / Chairs
07:30	Breakfast		Hotel
	Spin Architectures		
09:00	Circuit Quantum Electrodynamics with Two Remote Electron Spins	Patrick Harvey-Collard (IBM)	Chair: Moselund
09:20	Hybrid Circuit QED with Semicond. QDs and High-Z Supercond. Resonators	Pasquale Scarlino (EPFL)	
09:40	Progress towards read-out with compact resonators	Eoin Kelly (IBM)	
10:00	Cryo-CMOS electronics for qubit control and readout	Mridula, Prathapan (IBM)	
10:20	Break (30 min)		
10:50	Renormalization of g-factors in quantum dots	Richard Hess (Basel)	Chair: Fuhrer
11:10	Nuclear Spin Readout in a Cavity-Coupled Hybrid Quantum Dot-Donor System	Jonas Mielke (Konstanz)	
11:30	Benchmarking with Quantum Error Correction	James Wootton (IBM)	
11:50	Adaptive informationally complete POVMs for near term Q- Algorithms	Ivano Tavernelli (IBM)	
12:10	Conclusions	Dominik Zumbühl (Basel)	
12:20	Lunch Bag		Rondo Convention Center
13:02	Departure Train from Pontresina Station		
14:02	Departure Train from Pontresina Station		
	Individual Travel Arrangements		