

International Workshop on Superconducting Quantum Technology

Freyburg / Unstrut, Germany, 18th – 21st June 2017



www.FLUXONICS-Foundry.de

Sunday	until 14:00	Arrival	
18.06.2017	14:30-15:00	Welcome	
	15:00-16:30	Tutorials (I)	
	15:00-15:45	Oleg Mukhanov	Energy efficient circuit development
	15:45-16:30	Nobuyuki Yoshikawa	Status of RSFQ developments in Japan
	16:30-17:00	Coffee Break	
	17:00-18:30	Tutorials (II)	
	17:00-17:45	Jürgen Kunert	Technologies for superconductor electronics at FLUXONICS Foundry
	17:45-18:30	Thomas Ortlepp	Trends and developments in superconductor electronics
	19:00-20:00	Dinner Get together	
Monday	until 08:00	Breakfast	
19.06.2017	08:30-10:00	Session (I): SFQ	
	08:30-09:00	Nobuyuki Yoshikawa	Adiabatic quantum flux parametron as an ultra-energy-efficient readout circuit for superconducting sensor arrays
	09:00-09:30	Masaaki Maezawa	Simulation of Thermal Annealing of Superconducting Bits
	09:30-10:00	Krzysztof Pomorski	Modeling superconducting Random Access Memory for RSFQ electronics
	10:00-10:30	Coffee Break	
	10:30-12:00	Session (II): SFQ	
	10:30-11:15	Oleg Mukhanov	Recent progress in HYPRES
	11:15-12:00	Thomas Ortlepp	Advantages and challenges of superconductor memory
	12:00-13:00	Lunch Break	
	13:30-15:00	Session (III): QuBits	
	13:30-14:30	Evgenij Ilichev	Superconducting qubits: modern developments and perspectives
	14:30-15:00	Frank Deppe	Quantum technology with superconducting qubits and propagating quantum microwaves
	15:00-15:30	Coffee Break	
	15:30-16:30	Session (IV): QuBits	
	15:30-16:00	Jan Goetz	Single-electron tunneling as a tool for quantum environment engineering
	16:00-16:30	Gregor Oelsner	The dressed superconducting qubit
	17:30-19:00	Dinner	
	19:30-21:30	Social Event	
		Get together	

Tuesday	until 08:00	Breakfast	
20.06.2017	08:30-10:00	Session (V): SQUIDs	
	08:30-09:00	Andrei Matlashov	Low Power Defluxing of Superconducting Circuits
	09:00-09:30	Matthias Schmelz	Low-frequency magnetic flux noise in dc SQUIDs
	09:30-10:00	Ronny Stolz	New family of current sensors
	10:00-10:30	Coffee Break	
	10:30-12:00	Session (VI): Detectors	
	10:30-11:00	Hiroataka Terai	Cryogenic digital signal processing for superconducting single-photon detectors
	11:00-11:30	Sebastian Kempf	Physics and Applications of Metallic Magnetic Calorimeters
	11:30-12:00	Masataka Ohkubo	Extreme spectral and spatial resolution of superconducting detectors for analytical instrumentation
	12:00-13:00	Lunch Break	
	13:30-18:45	Excursion	
	19:30-22:00	Dinner	Return to the Hotel approx. 23:00!
Wednesday	until 08:00	Breakfast	
21.06.2017	08:30-10:00	Session (VII): Applications	
	08:30-09:00	Woohyun Chung	Microwave Axion Experiment using Superconducting Quantum Technology
	09:00-09:30	Bernd Schmidt	Development of an optimized „Dry“ Cryostat with a new Low Power Pulse Tube Cooler as operation platform for low vibration applications at cryogenic Temperatures down to 4 K
	09:30-10:00	Vyascheslav Zakosarenko	Non-destructive beam current measurement with sub-nA resolution using dc-SQUIDs
	10:00-10:30	Coffee Break	
	10:30-12:00	Session (VIII): Applications	
	10:30-11:00	Andrei Matlashov	SQUID instruments for Early Cancer Diagnostics
	11:00-11:30	Ronny Stolz	SQUIDs in geoscientific scenarios: status and future developments
	11:30-12:00	Masataka Ohkubo	Superconducting tunnel junction (STJ) molecule detectors for planetary science and prebiotic chemistry
	12:00-12:15	Closing	
	12:15-13:30	Lunch	
	13:30 -	Departure	