

Summer school program on Superconducting Electronics – Corsica, France – 29 Sept.-04 Oct. 2024

schedule	Monday 30 September 2024	Tuesday 01 October 2024	Wednesday 02 October 2024	Thursday 03 October 2024	Friday 04 October 2024	
9h00-9h45	8H45-9H00 : WELCOME 9:00: THEORY I – Basics of superconductivity Mikhail BELOGOLOVSKII	THEORY IV – Basic Materials for Superconducting Electronics Mikhail BELOGOLOVSKII	THEORY V Electromagnetic modelling Hannes TÖPFER	QUANTUM III – Circuit quantum electrodynamics Miroslav GRAJCAR	Check-out time: 10:00 am	
9h45-10h30	THEORY II – Basic Components of Superconducting Electronics Mikhail BELOGOLOVSKII	SQUIDS IV – Scanning (nano-) SQUID Microscopy Hans HILGENKAMP	THEORY VI Microwave design for superconductor circuits Pascal FEBVRE	NEUROMORPHIC II Superconducting neuromorphic computing Ali BOZBEY	10:00am HTS II – High Temperature Superconductors Physics and Applications I Cheryl FEUILLET-PALMA	
10h30-11h00	coffee break					
11h00-11h45	SQUIDS I – working principles and noise performance Carmine GRANATA	SQUIDS V – SQUID applications in neuroscience and fundamental physics investigation Carmine GRANATA	DETECTORS I – Superconducting Detectors: TES, STJ, MKID Sergio PAGANO	DETECTORS III – Advanced photon counting applications with SN/MSPD Loredana PARLATO	DIGITAL IV - Digital SFQ electronics: practical design on examples Pascal FEBVRE	
11h45-12h30	TECHNOLOGY I - Thin-Film Technology for Superconductor Electronics and Quantum Devices Juergen KUNERT	SQUIDS IV - lab instr., particle detection, NDE, Biomagnetism, Geoscientific applications Ronny STOLZ	DIGITAL III SFQ Circuit Design Flow: Design, optimization, layout and verification Lieve SCHINDLER	HTS I – High Temperature Superconductors Physics and Applications I Cheryl FEUILLET-PALMA	SQUIDS VII – High temperature superconducting ultra-wideband RF sensing Salvatore MESORACA	
13h00-16h00	lunch break Lunches start at 1:00pm					
16h00-16h45	SQUIDS II – DC SQUIDS: Design and Optimization, practicals Ronny STOLZ	DIGITAL I - Digital SFQ electronics: from the Josephson junction to the SFQ principle Pascal FEBVRE	NEUROMORPHIC I Superconducting neuromorphics Ali BOZBEY	QUANTUM IV Quantum detectors Miroslav GRAJCAR	End of school	
16h45-17h30	SQUIDS III – NanoSQUIDS basics Hans HILGENKAMP	DIGITAL II - SFQ Digital Electronics: how to design basic RSFQ cells through circuit theory Lieve SCHINDLER	DETECTORS II – Superconducting Nano/Microstrip Single Photon Detectors: physics & state of the art Loredana PARLATO	DETECTORS IV – Superconducting Microwave Quantum Detectors Sergio PAGANO	All lectures are 40 mn + 5 mn of questions..	
17h30-18h00	coffee break					
18h00-18h45	THEORY III Electromagnetic modelling Hannes TÖPFER	TECHNOLOGY II – Thin film technologies for superconductor quantum electronics Juergen KUNERT	QUANTUM I – Principles of Quantum Physics Mikhail BELOGOLOVSKII	DETECTORS V – Superconducting Parametric Amplifiers for Quantum circuits Sergio PAGANO		
18h45-19h30	METROLOGY I – Metrology and electrical quantum standards Johannes KOHLMANN	METROLOGY II – Metrology and electrical quantum standards Johannes KOHLMANN	QUANTUM II Superconducting qubits Miroslav GRAJCAR	TECHNOLOGY III – Micro-nanofab. by FIB. Self assembly techniques, nano-structuration. Giuseppe LEONETTI		
20h00-21h30	Dinners start at 8pm					
21h30-23h30	POSTER SESSION: group I	POSTER SESSION: group II	POSTER SESSION: group III			

Legend:	fundamentals & theory	digital electronics	SQUIDS and applications	neuromorphic	HTS
	quantum	POSTER SESSION	metrology	technology	Detectors

Last update: 02/10/2024