

Summer school program on Superconducting Electronics - Crete island, Greece – 25-30 September 2022

schedule	Monday September 26, 2022	Tuesday September 27, 2022	Wednesday September 28, 2022	Thursday September 29, 2022	Friday September 30, 2022	
9h00-9h45	8H45-9H00 : WELCOME THEORY I – Basics of superconductivity	THEORY VI – Josephson devices and their applications	QUANTUM I – introduction to quantum technologies	QUANTUM II – Superconducting qubits and quantum-limited measurements	QUANTUM IV Superconducting qubits and quantum-limited measurements	
9h45-10h30	THEORY II – Basics of superconductivity	SQUIDS I – working principles, noise performance & configurations	SQUIDS V – NanoSQUIDs and nanomagnetism applications	DIGITAL III – SFQ circuit design, layout, verification	NEUROMORPHIC II Superconducting neuromorphic computing	
10h30-11h00	Break					
11h00-11h45	THEORY III Josephson junction dynamics	TECHNOLOGY I Basics of thin film technology	NEUROMORPHIC I Superconducting neuromorphics Hans HILGENKAMP	CRYOGENY I Basic aspects Alain RAVEX	TECHNOLOGY III – Micro and nanofabrication for superconducting devices	
11h45-12h30	THEORY IV Electromagnetic modelling	SQUIDS II – DC SQUIDs: Design and Optimization, practicals	DIGITAL I Digital SFQ electronics	CRYOGENY II Electronics and detectors	SQUIDS VII – SQUID array design	
12h30-13h00	Q&A sessions : Answers from Questions placed on questionnaires, focused on the corresponding morning session					
13h00-15h45	lunch break restaurant opening hours:12H30-14H30					
15h45-16h30	THEORY V Electromagnetic modelling	lunch break restaurant opening hours:12H30-14H30				
16h30-17h15	Pitches on posters (2' per poster) followed by poster session	TECHNOLOGY II – Thin film technologies for superconductor quantum electronics	DIGITAL II SFQ digital electronics Coenrad FOURIE	QUANTUM III – Superconducting qubits and quantum-limited measurements	End of school	
17h15-18h00		SQUIDS III – NanoSQUIDs and scanning SQUID microscopy	SQUIDS VI – NanoSQUIDs and Scanning SQUID Microscopy	HTS I – Introduction to High Tc superconducting cuprates		
18h00-18h30	Break					<p>* All lectures are 40 mn + 5mn of questions.</p> <p>* Questionnaire forms will be made available in the lecture room to write questions related to lectures.</p> <p>* Answers to questions of questionnaires will be given during Q&A sessions.</p>
18h30-19h15	Poster session	DETECTORS I – Superconducting single photon detectors: physical mechanisms and applications	DETECTORS II – Superconducting single photon detectors: physical mechanisms and applications	HTS II – High Tc Josephson junction devices and Single Photon Detectors		
19h15-20h00		SQUIDS IV Applications in Geophysics	METROLOGY I – Metrology and electrical quantum standards	METROLOGY II – Metrology and electrical quantum standards		
20h00-20h30		Q&A sessions : Answers from Questions placed on questionnaires, focused on the afternoon session				
20h30-21h30	dinner restaurant opening hours: 18H30-21H30					