Kickoff meeting of CE FET project

SUPERGALAX

"Highly sensitive detection of single microwave photons with coherent quantum network of superconducting qubits for searching galactic axions"

Project number 863313

03rd of February 2020, SPIN-CNR Pozzuoli (Via Campi Flegrei 34. Conference room "Antonio Barone")

Public session

Welcome & Introduction

9:00 – 09:15

Dr. Mikhail Lisitskiy (Project Coordinator, National Research Council of Italy (CNR), Institute for Superconductors, Oxides and Other Innovative Materials and Devices (SPIN-CNR), Italy).

Dr. Roberto Cristiano (Director of the SPIN-CNR, UOS of Naples, Italy)

Dr. Ivo Rendina (Director of the Institute of Applied Sciences and Intelligent systems (ISASI-CNR) and of the Third Research Area of Naples, Italy).

9:15 – 09:30

Dr. Mikhail Lisitskiy (SPIN-CNR, Italy)

"Overview of the EC-FET SUPERGALAX project"

Presentation of current and future scientific activities of the SUPERGALAX Consortium

09:30 - 09:55

Dr. Claudio Gatti (National Institute for Nuclear Physics, INFN, Italy)
"Boosting Axions searches with quantum sensing"

09:55 - 10:20

Prof. Alexandre Zagoskin (Loughborough University, United Kingdom)
"Quantum limited detection with coherent quantum structures"

10:20 - 10:45

Dr. Mikhail Fistul (Ruhr-University, Bochum, Germany)
"Collective states in coherent quantum networks of interacting qubits"

10:45 – 11:10

Prof. Alexey Ustinov (Karlsruhe Institute of Technology, Germany)
"Experimental detection of collective states of interacting qubits"

Coffee Break

	11:25 – 11:50 Dr. Gregor Oelsner (Leibniz Institute of Photonic Technology, Germany) "Towards a single photon detection"
	11:50 – 12:15 Dr. Giorgio Brida (Italy's National Metrology Institute, Italy) "Design and fabrication of an heralded single MW photon source based on the Josephson travelling wave parametric amplifier"
	12:15 – 12:40 Prof. Marco Affronte, Dr. Alberto Ghirri, Dr. Claudio Bonizzoni (Institute of Nanoscience (NANO-CNR). Italy) “Qubits characterization by microwave”
	12:40 – 13:05 Dr. Mikhail Lisitskiy, Dr. Mikkel Ejrnaes (SPIN-CNR, Italy) “Material research for quantum technology”
Closed session	**Lunch time**
	14:30 – 15:00 Visit of laboratories of the SPIN-CNR, Pozzuoli
	Discussions about realization of SUPERGALAX project: scientific and administrative aspects
	15:00 –16:30 - Steering Board creation; - discussion about joint scientific activities and collaborations for realization of the project objectives and obtaining of proposed deliverables; - analysis of critical implementation risks and effort to avoid their; - discussion about the possibilities to stabilize scientific links with other EC projects.
	Coffee Break
	16:45 – 18:30 - confirmation of the logo of the project ; - choose of the requirements to the project website, discussion about the research data depository required by Open Research Data Pilot; - discussion about possible dissemination ways of the project activity ; - information about organization of the section “Quantum Detectors” of the Conference WOLTE 14 (June 2020, Matera, Italy); - information about organization of the International Workshop “Searching Galactic Axions and Superconducting devices with Quantum Efficiency”(SUPERGALAX) (October 2020, Daejeon, Republic of Korea); - information about administrative and financial aspects of the project and indication concerning correct management of the project money.
	18:30 - 19:00 Visit of the laboratories of the SPIN-CNR, Pozzuoli
	19:00-20:00 Free time
	20:00 Social dinner