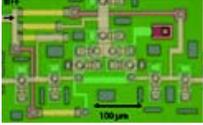




1st Announcement of the 11th FLUXONICS RSFQ design workshop

Engineering single-flux-quantum microelectronics



Technische Universität Ilmenau – Germany



The 11th FLUXONICS Workshop on the Design of Superconductive Flux-Quantum-based microelectronic circuits will take place from **September 22-23, 2022** at its traditional location in **Ilmenau / Germany**.

Flux-Quantum electronics has been a relevant and promising option for creating ultra-low power and at the same time ultra-fast monolithically integrated circuits.

Besides existing demonstration in the read-out of quantum sensors and detectors, with the recent rapid increase of interest in quantum technologies, these principles will be developed towards peripheral electronics for quantum-based information processing.

FLUXONICS e.V. is a society with the aim of fostering the development by clustering the efforts of international researchers and providing an ecosystem from fundamental research via design up to implementation and chip fabrication.

The purpose of the workshop is to introduce essential aspects of this circuit technique to those who are not yet familiar with it, however being interested.

This aim is to be achieved in a two-fold manner:

- Experienced researchers will provide lectures on the basics of contemporary superconductive electronics.
- Researchers, being active in this field, will report on recent achievements and exchange experience in putting such circuits into action.

Therefore, it is a unique chance to get an overview within a short time, and also to get in contact with experts in this field.

Topics will cover:

- Basic principles of superconducting sensors and circuits
- Circuits for flux-quantum based information processing
- Fabrication technology
- Design approaches
- System integration

- Quantum sensors and sensor system
- From chip design to hardware
- Applications
- Requirements for application in digital quantum computing
- Advanced architectures

The workshop is part of FLUXONICS' activities of spreading the knowledge about superconducting sensors and electronics circuits, thus contributing to the utilization of this technology.

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