



Silicon Quantum Electronics Workshop 2019 (SiQEW2019)

14.Oct - 16.Oct 2019

Cod. Z25-19

Mod.:

Face-to-face

Edition

2019

Activity type

Workshop

Date

14.Oct - 16.Oct 2019

Location

Edificio "Ignacio M^a Barriola" (Aulario)

Languages

English

Academic Validity

30 hours

Web

<http://siqew2019.dipc.org/>

Organising Committee



Description

The Silicon Quantum Electronics Workshop focuses on silicon-based approaches to realizing quantum electronics circuitry such as quantum computers. This workshop is the 2019 edition of a series of workshops on silicon quantum electronics that have taken place roughly once a year since 2007.

During the workshop the following topics will be discussed:

- Qubit implementations in silicon and silicon-germanium,
- Advances in materials and fabrication,
- Cryogenic classical (nano)-electronics and classical electronic interfaces with qubits,
- Computer-assisted design and analysis of dopant and quantum dot architectures,
- Theory and modeling of charge and spin decoherence mechanisms in silicon,
- Quantum error correction for Si and SiGe qubits,
- Approaches to multi-qubit and coherent on-chip communication,
- Hybrid-qubit approaches combining Si and/or SiGe with other qubit systems.

Organizing committee:

María José Calderón, Instituto de Ciencia de Materiales de Madrid (CSIC)

Fernando González-Zalba (Hitachi Laboratory Cambridge)

Rubén Ochoa (DIPC and Hitachi Laboratory Cambridge)

Gloria Platero (Instituto de Ciencia de Materiales de Madrid, CSIC)

José Carlos Abadillo-Uriel (University of Wisconsin-Madison)

Objectives

The purpose of the workshop is to unite the leading researchers, students, and postdocs in the field to discuss advances in silicon quantum device fabrication, measurement, modeling, and theory.

Course specific contributors



Directed by



María José Calderón

Instituto de Ciencia de Materiales de Madrid (CSIC)

Registration fees

REGISTRATION FEES	UNTIL 14-10-2019
Attendant fee	100,00 EUR
Reserved organization	0 EUR

Place

Edificio "Ignacio M^a Barriola" (Aulario)

Plaza Elhuyar 1. Donostia / San Sebastián

Gipuzkoa