



# 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<sup>a</sup> 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)

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# Registration fees

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

## **Place**

### **Edificio "Ignacio M<sup>a</sup> Barriola" (Aulario)**

Plaza Elhuyar 1. Donostia / San Sebastián

Gipuzkoa