Quantum Designer Physics (QDP2018)

16.Jul - 19.Jul 2018

Cód. Z06-18

Mod.:
Presencial

Edición
2018

Tipo de actividad
Workshop

Fecha
16.Jul - 19.Jul 2018

Ubicación
Palacio Miramar

Idiomas
Inglés

Validez académica
40 horas

Web
http://qdp2018.dipc.org

DIRECCIÓN

Andrés Arnau Pino, UPV/EHU

Vitaly Golovach, Ikerbasque Research Fellow, Materialen Fisika Zentroa CFM and Donostia International Physics Center, Ikerbasque Research Fellow

Comité Organizador

Descripción

The workshop Quantum Designer Physics will highlight recent advances in material systems purposefully designed for studying some of the most intriguing physical phenomena at the nanoscale. Very broadly these phenomena are related to spin, topology, and coherence, which enable the materials display quantum functionalities. Condensed Matter Physics is known for providing a rich variety of material systems in which different physics can be found and studied. With the recent development of quantum materials, it appears to be possible to devise the physics and implement a suitable material system for that physics on demand. This workshop brings together the leading experts working on quantum materials and aims at creating a stimulating atmosphere for discussing new physics on the marvelous sites of San Sebastian. We will discuss recent progress in creating ordinary and topological quantum systems in different dimensions as well as some of the most exotic quantum materials based on graphene and other n-dimensional materials. We will update on the progress in spin-based quantum computing with a look into the prominent future of quantum technologies. The quest for Majorana bound states in hybrid superconducting systems and topological quantum computing are also on our agenda. We hope the workshop will foster collaborations and inspire its attendants to tackle new problems with great ideas which make a difference for fundamental physics, lead to applications, and advance futuristic technologies.

Organizing committee:

Daniel Loss, University of Basel, Switzerland

Francisco Guinea, IMDEA Madrid and University of Manchester, UK

Andrés Arnau, DIPC and CFM-UPV/EHU, Donostia-San Sebastian (chair)

Vitaly Golovach, DIPC and CFM-UPV/EHU, Donostia-San Sebastian (chair)

Objetivos

To bring together leading experts working on the frontiers of the design of advanced materials with quantum functionalities.

To present and discuss the recent developments in the field and determine directions of future research.

To facilitate the discussion and foster collaborations between theoretical and experimental physicists, including local scientists from Donostia.

To create the conditions for young and brilliant scientists to present their work and make themselves visible in this rapidly developing field.

Colaboradores específicos del curso

Dirigido por:

Andrés Arnau Pino

UPV/EHU

Vitaly Golovach

Ikerbasque Research Fellow, Materialen Fisika Zentroa CFM and Donostia International Physics Center, Ikerbasque Research Fellow

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Precios matrícula

REGISTRATION	HASTA 06-07-2018
Regular Fee	300,00 EUR
Invited Speaker	0 EUR

Lugar

Palacio Miramar

Pº de Miraconcha nº 48. Donostia / San Sebastián

Gipuzkoa