



Topological Matter School: Topological excited States and Non- crystalline Systems (TMS2025)



Abu. 18 - Abu. 22 2025

Kod. Z17-25

Mod.:

Aurrez aurrekoa

Edizioa

2025

Jarduera mota

Workshop

Data

Abu. 18 - Abu. 22 2025

Kokalekua

Miramar Jauregia

Hizkuntzak

Ingelesa

Balio akademikoa

50 ordu

Webgunea

<https://tms-dipc.org/>

Antolakuntza Batzordea

Azalpena

Excitations play a crucial role in determining fundamental electronic and optical properties of a crystal, and can even give rise to states of matter without any equilibrium counterparts. At the single-layer limit, quantum confinement and enhanced interaction effects lead to exotic many-body phenomena. For example, single-layer semiconductors host tightly bound excitons with large binding energies that remain stable even at room temperature. In bilayer and few-layer stacks, the relative twist angle between layers introduces an additional degree of tunability, enabling the exploration of new emergent phenomena. These include strongly correlated electronic states, adjustable band gaps, unique optical and magnetic properties, and correlated topological phases such as spin Hall and fractional quantum Hall effects.

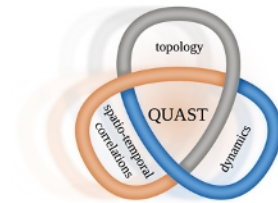
ORGANIZING COMMITTEE:

- Maia G. Vergniory (DIPC, Max Planck)
- Reyes Calvo (BC Materials)
- Santiago Blanco-Canosa (DIPC, Ikerbasque)
- Adolfo Grushin (Institut NEEL - CNRS)
- Alexander Altland (University of Cologne)
- Julen Ibañez Azpiroz (CFM, Ikerbasque)

Helburuak

The summer school aims to offer a comprehensive introduction to these cutting-edge topics and situate them within the broader framework of emergent phenomena in condensed matter physics.

Ikastaroaren laguntzaile espezifikoak



Zuzendaritza



Maia García Vergniory

Donostia International Physics Center

Matrikula prezioak

REGISTRATION	2025-07-20 ARTE
Fee Waiver	0 EUR
Regular attendant	400,00 EUR

Kokalekua

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Gipuzkoa