



# XXIst International Workshop on Quantum Atomic and Molecular Tunneling Systems (QAMTS24)



**17.Jun - 21.Jun 2024**

**Cod. Z07-24**

**Mod.:**

Face-to-face

**Edition**

2024

**Activity type**

Workshop

**Date**

17.Jun - 21.Jun 2024

**Location**

Miramar Palace

**Languages**

English

**Academic Validity**

50 hours

**Web**

<https://qamts2024.dipc.org/>

**Organising Committee**

Fundación  
BBVA



## Description

Tunneling phenomena are of importance in a wide range of fields in the physical, chemical, biological and computational sciences. The present series of Workshops has always been highly cross-disciplinary. It encompasses work on tunneling of protons and heavier species in gas and condensed phases, in general, including biological systems, chemical reactions, transport phenomena in solids and liquids and in systems of lower dimensionality.

The scientific program will include, but is not limited to, the following topics:

- *Proton tunneling in hydrogen bonds*
- *Tunneling and proton transfer in biomolecular systems*
- *Kinetic isotope effects*
- *Vibrational rotational tunneling dynamics in molecules and clusters*
- *Tunneling in quantum ferroelectrics and paraelectrics*
- *Atomic and molecular tunneling in wires, surfaces, glasses and amorphous systems*
- *Tunneling in porous materials*
- *Tunneling diffusion phenomena*
- *Spin-tunneling problems*
- *Tunneling transport in superprotonic conductors, acids and bases*
- *Effects of atomic tunneling on electron transport in nanosystems*
- *Advances in deep inelastic (Compton) neutron scattering*
- *Advances in NMR, Synchrotron Radiation, and other experimental techniques with applications to tunneling*
- *Multidimensional tunneling theories*
- *Quantum annealing (adiabatic quantum computing)*
- *Advances in computational methods and software updates*
- *Tunneling in the interstellar medium*

### ORGANIZING COMMITTEE:

Ricardo Díez Muiño, Donostia International Physics Center, San Sebastian (Chair)

Antonio Fernández Ramos, Universidade de Santiago de Compostela (Chair)

Salvador Miret Artés, Instituto de Física Fundamental CSIC, Madrid (Chair)

### Objectives

We encourage contributions on all phenomena where atomic, molecular, or magnetic tunneling plays an important role, including not only processes in solids and matrices, but also organic and organometallic reactions in liquids, tunneling processes in clusters and nanoparticles, enzyme-catalyzed reactions, and some non-traditional emerging areas.

### Course specific contributors



HEZKUNTZA SAILA  
DEPARTAMENTO DE EDUCACIÓN

## Directed by



**Salvador Miret Artés**

Instituto de Física Fundamental, CSIC

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# Registration fees

<b>REGISTRATION</b>	<b>UNTIL 09-06-2024</b>
Fee Waiver	0 EUR
Student Fee	310,00 EUR
Standard Fee	420,00 EUR

## **Place**

### **Miramar Palace**

Pº de Miraconcha nº 48. Donostia / San Sebastián

Gipuzkoa