



Master's Degree in  
Quantum Technologies

# Quantum Technologies

925 3852 7130

[qtep.csic.es/master-quantum-tech](http://qtep.csic.es/master-quantum-tech)  
[qt.master@csic.es](mailto:qt.master@csic.es)

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<https://qtep.csic.es/master-quantum-tech>

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U. Sevilla



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INMA CSIC-Unizar

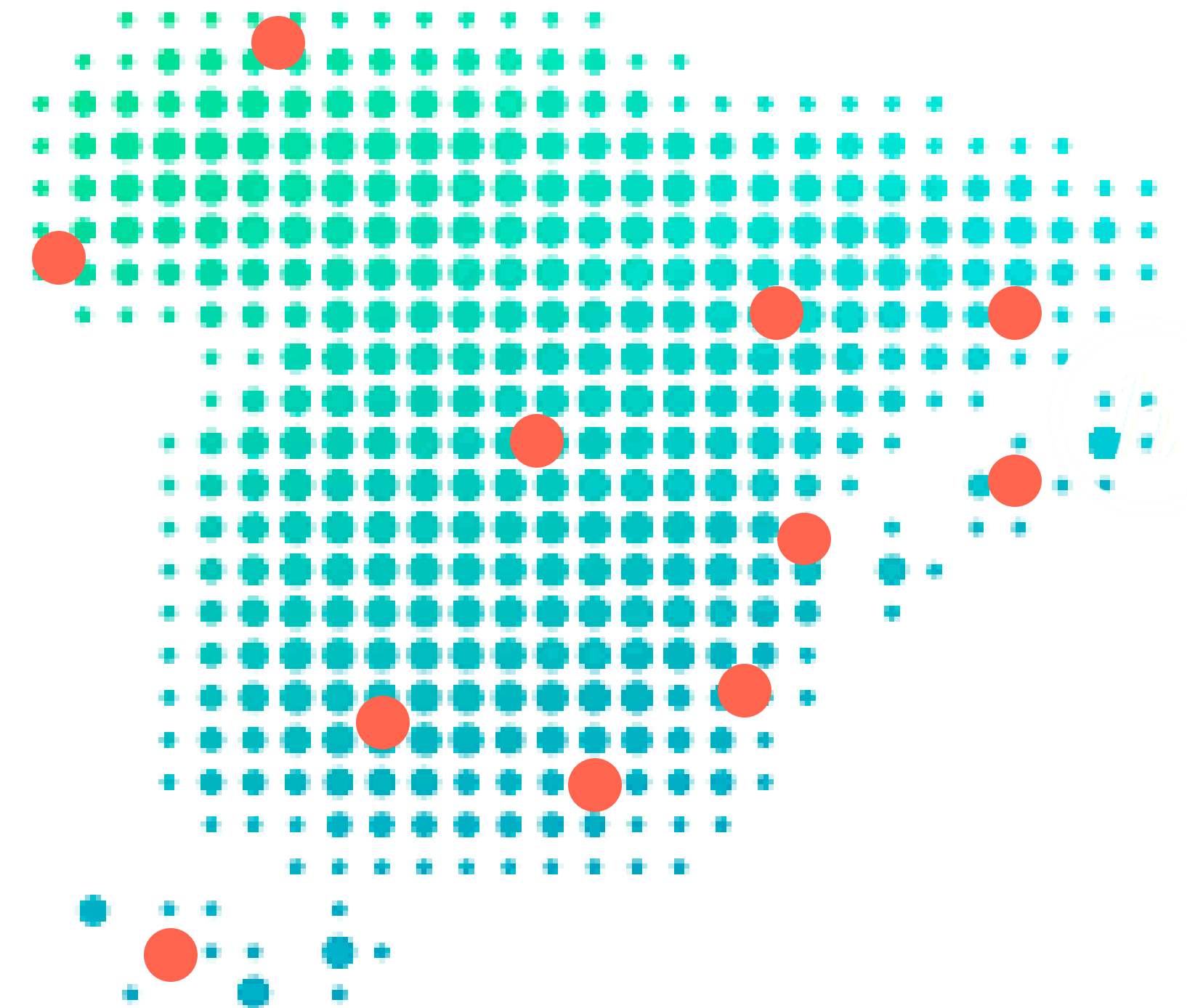






Universida de Vigo

- 60 ECTS (18 TFM, 12+3+3 compulsory + 24 elective)
- 29 € / ECTS (60x29=1740)
- Language: English (international students)
- **Lecturers:** Q-tech researchers across Spain.
- **Primarily online**, except
  - **labs** in “Quantum Technologies Laboratory” elective subject
  - **Workshop**, 1 week, late June-early July.
- **Master thesis online/onsite**





$$60 = 12 + 3 + 3 + 18 + 24$$

- Fundamentals of quantum technologies (3 ECTS). First three weeks.
- Advanced Quantum Mechanics (6 ECTS)
- Theory of Quantum Information (6 ECTS)
- Workshop on Quantum Technologies (3 ECTS). One week.
- Master Thesis project dissertation (18 ECTS)





QTYR23 (1st edition) Madrid



QTYR24 Workshop. 2nd edition,

Co-organized with:



**PYSQT**

PHD AND YOUNG  
SCIENTISTS QUANTUM  
TECHNOLOGIES NETWORK





# Elective subjects (choose 24 ECTS)

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Quantum computing (6 ECTS)

Machine learning and quantum computers (3 ECTS)

Quantum cryptography and communication (6 ECTS)

Quantum sensors (6 ECTS)

Open quantum systems and quantum thermodynamics (6 ECTS)

Quantum control (3 ECTS)

Implementation of quantum technologies (3 ECTS)

Superconducting quantum circuits (3 ECTS)

Quantum nanophotonics (3 ECTS)

Quantum technologies with photons and atoms (3 ECTS)

Semiconductor and hybrid qubits (3 ECTS)

Micro/nano fabrication for quantum technologies (3 ECTS)

Quantum technologies laboratory (6 ECTS)



First semester: October-early February  
Second semester: late February-early June

**Masterclasses** (pre-recorded/synchronous and recorded): 5 hours/ECTS.

**Practical lectures** (synchronous participation evaluated): 2.5-3 hours/ECTS  
Recorded so that students can review them later.

**Tutorships:** 5 (10) for 3 (6) ECTS subjects. Not recorded.

Synchronous lectures after 2pm (CET)



**Apply before May 29<sup>th</sup> (23:59 Madrid time). WEB DE LA UIMP**

Admissions decision: June 17th.

Final admissions decision: June 20th (to account for errors).

Conditional admission: finish your degree and submit your paperwork before the end of October.

Extraordinary admission: apply July 15th-September 10th.

## Admissions criteria

1. Academic record, 3.5 points. The maximum score will be assigned to the candidate with the highest average grade
2. Suitability of the candidate's knowledge (courses taken, other degrees), 3 points.
3. Research experience (Bachelor's Thesis, stays and collaborations in research centers or companies in the sector), 2 points.
4. Motivation and letters of recommendation, 1 point. Recommendation letters can be sent to [qt.master@csic.es](mailto:qt.master@csic.es).
5. English proficiency level - B2 Level, 0.5 points.

**QUESTIONS?** [preinscripcion.posgrado@uimp.es](mailto:preinscripcion.posgrado@uimp.es)



**OPEN  
CLASS**

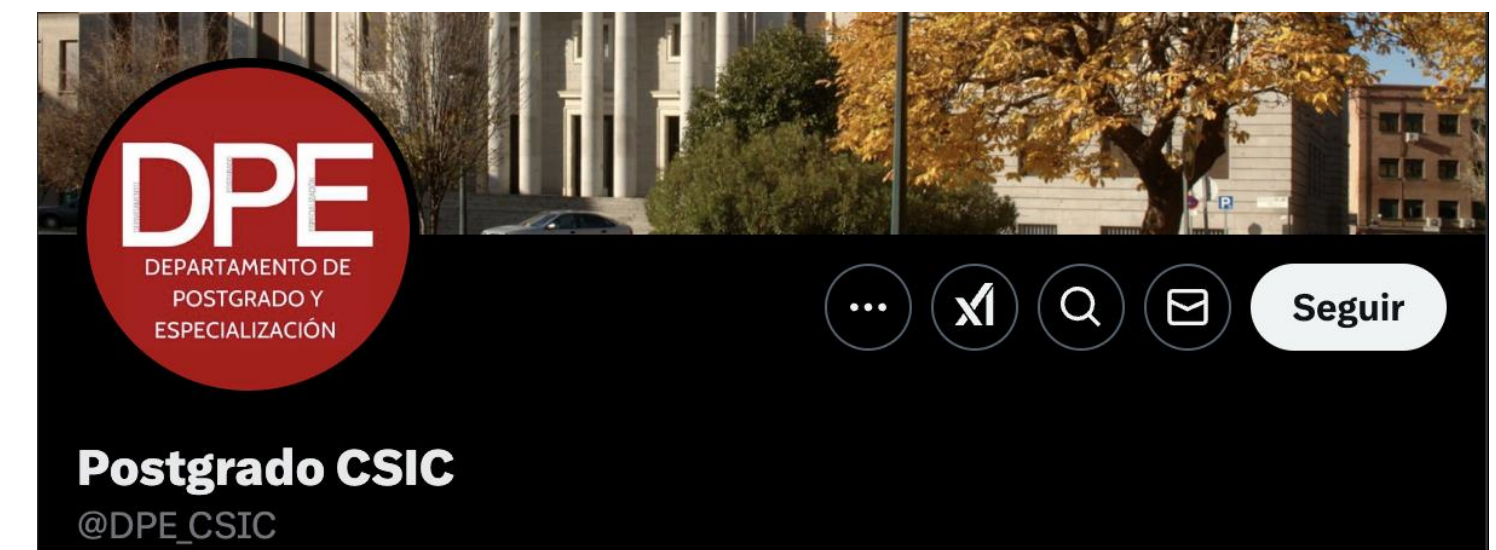


**Juan José García-Ripoll  
y María José Calderón**

**Investigador del IFF y  
Directora del Máster  
en tecnologías  
cuánticas**



(in Spanish) on March 7, 2025, 17:00 CET



+ online presentation (TBA) : <https://qtep.csic.es/master-quantum-tech>



General reference: <https://www.euraxess.es/spain/science-spain/funding-opportunities-spain>

**CSIC:** JAE-Intro (deadline May 20th, 7x600€) <https://sede.csic.gob.es/intro2024>

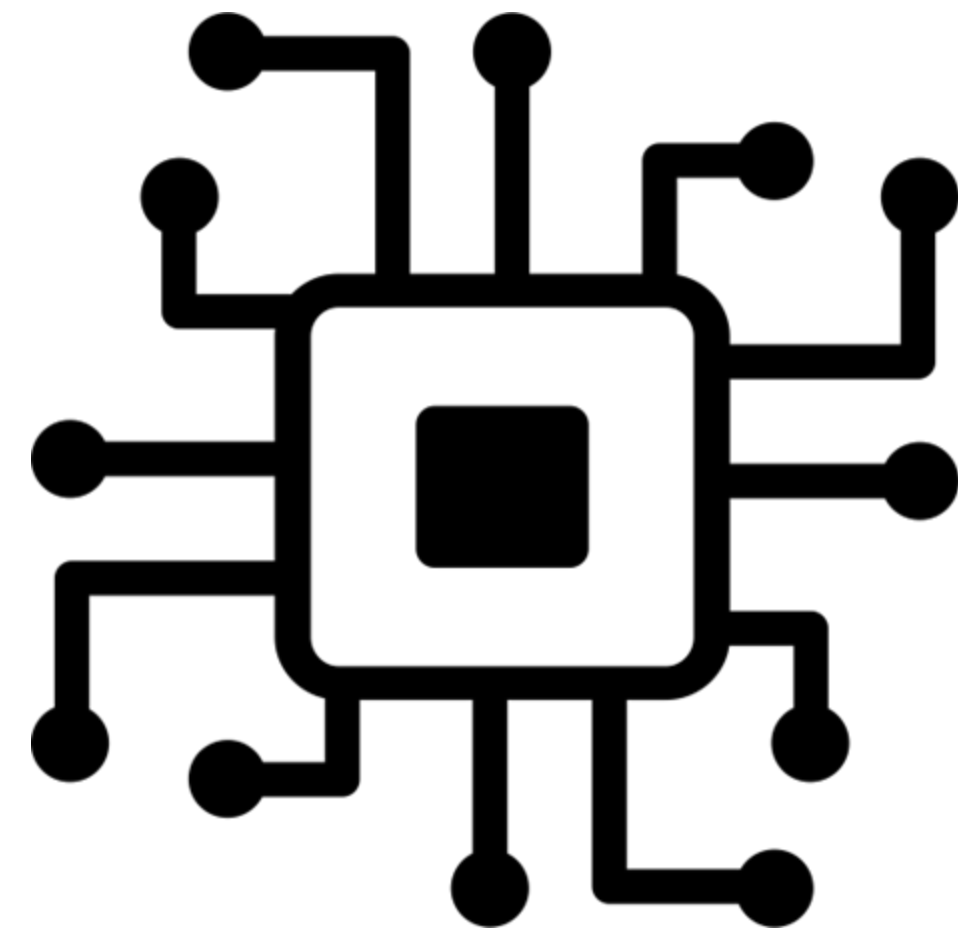
**UIMP:** *Becas de Colaboración* (deadline September) 2,000 €

**Local fellowships**, for example:

**INMA PI2:** (open, 6x400€) <https://inma.unizar-csic.es/formacion/practicas/practicas-pi2/>

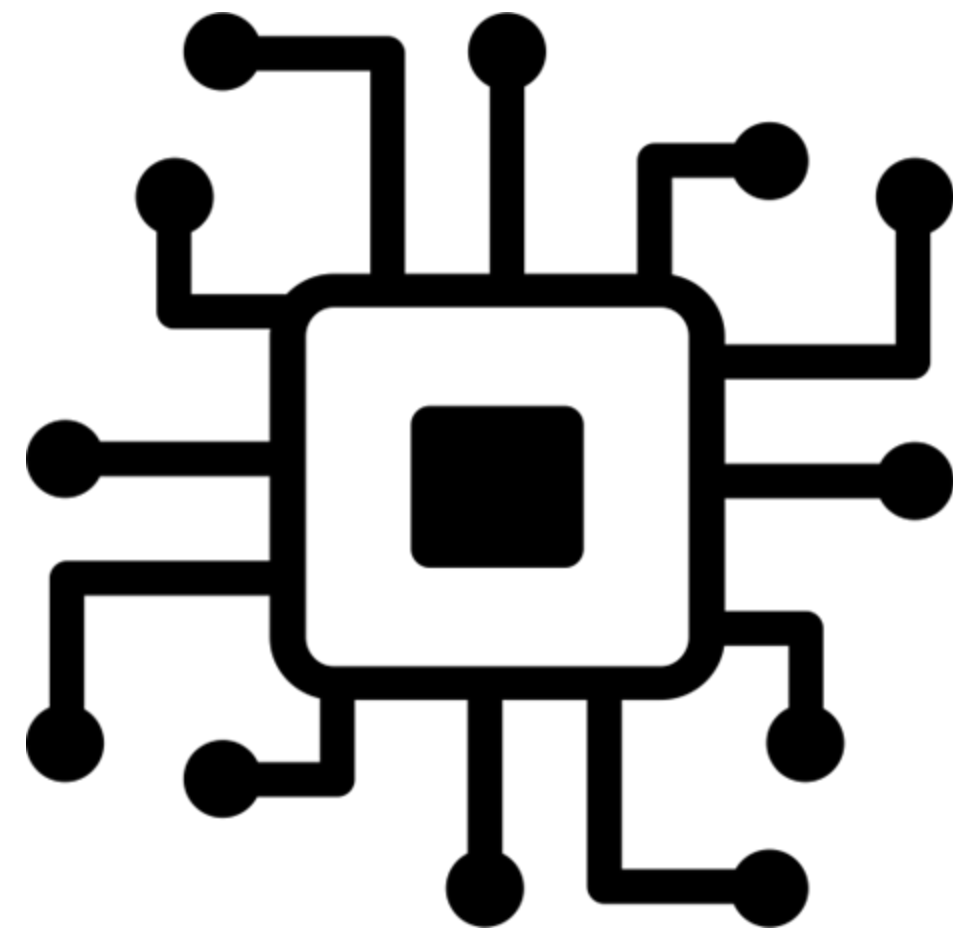
**UPCT** (deadline December, 3x360€, for UPCT students)

**ONERA + TALENT Q**

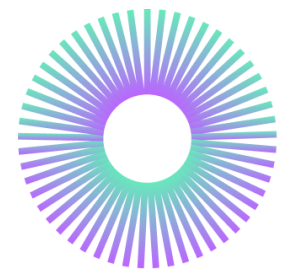












Pilar: Quantum Software Developer @ NTT-Data (Zaragoza)



Álvaro: Quantum Algorithms @ Inspiration-Q (Madrid)



Teresa: Data Scientist @ QuantumBlack McKinsey (Madrid)

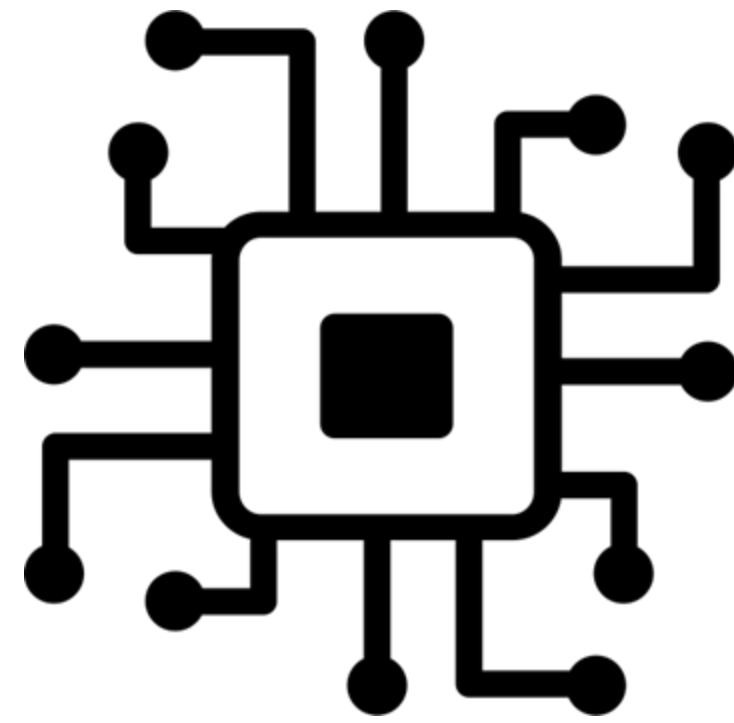
# Industry (w/ or w/o PhD) in Spain



Diego  
Porras



Juan José  
García-Ripoll



Benito  
Alén



José  
Llorens



Verónica  
Fernández-Mármol

Q-people:  
CEO 2/4  
TEAM 30 %







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**Admission open until May 29th, 2025**  
**<https://qtep.csic.es/master-quantum-tech>**

