ICFO Spring School on Open-Source Tools for Quantum Science & Technology

March 16, 2026 to March 19, 2026
ICFO Auditorium

Outline:

This Spring School aims to provide students with a practical introduction to software and hardware tools for both theory and experiments in quantum sciences & technology, including applications in computation & simulation, communications, and sensing.

The program will offer a combination of hands-on lectures and & tutorials led by researchers from ICFO and academic and industry experts and will cover a range of topics aimed at introducing students and researchers to a variety of open-source tools, as well as their use in cutting-edge research and industry.

The school is aimed at Master´s students who are interested in familiarizing themselves wit the use of these tools. Advanced undergraduates, starting PhD students, and researchers i the field may also be interested to attend.

Topics covered include:

Tools for quantum computing,
Quantum control,
Quantum communications,
AI discovery in Quantum Physics,
Workshops on transferrable skills such as networking, entrepreneurship and communications.

Confirmed speakers include:

Alastair Cunningham, ICFO
Claudia Huix, Qilimanjaro

David Owen, Science Melting Pot
Manolo Castellano, Talento Cientifico
Micha? van Hooft, TU Delft
Niall Moroney, Q-CTRL
Radha Pyari Sandhir, IBM Quantum
Sergi Ferrando, ICFO
Shaeema Zaman, Science Melting Pot
Soren Arlt, University of Tübingen
Tania Belabbas, University of Sherbrooke

The program will include a 1-day Research Symposium with talks from PhDs and Postdocs from across the **Catalonia Quantum Academy** community.

The school is organized by ICFO as part of the Master in Quantum Science and Technol gy Barcelona program, supported by the Catalonia Quantum Academy, TalentQ, the European project DigiQ and the Catalonia Quantum Academy.

The school will be followed by the annual 360 Quantum CARLA Careers Symposium, which will be held at La Pedrera in Barcelona on **Friday 20 March** and will offer participants glimpse of the diverse career paths and job opportunities available in this rapidly advancin field, along with an overview of emerging deep tech trends. Details of the program will b available shortly here?
The 360 Quantum CARLA is organized in collaboration with the Master in Quantum Science and Technology Barcelona, the European Quantum Flagship , DigiQ project and the Cataloni Quantum Academyi¿½.

Registration:

Registrations for the Spring School are now CLOSED.

There are **limited places available**. Preference will be given to Masters students enrolled n the DigiQ program.

Registration deadline: registrations for the school are now closed.

Applicants will be contacted and notified of the outcome (successful or not) within one w ek of the close of registration.

Please note that to attend the 360 Quantum CARLA Careers Symposium on Friday 20 March

a separate registration is required. You can register for the Careers Symposium here.

Fellowships:

Students enrolled in DigiQ may request travel support from their home university, if this is available.

Fellowships supported by TalentQ are available for students enrolled in Quantum Master programs in Spain. Please contact your Master program coordinator at your home institution for further details including eligibility criteria and application instructions.

Participating Institutions:

ICFO - the Institute of Photonic Sciences, is a young research institution that aims to advance the very limits of the science and technology of light, tackling important challenges faced by society at large in all areas of life, including health, energy, information, safety, security and caring for the environment. ICFO is a member of BIST, the Barcelona Institute of Science and Technology. More information about ICFO can be found?here.??

The **Master in Quantum Science and Technology Barcelona** is aimed at graduates in Physics, Physical Engineering or equivalent degrees who want to continue specialization studies in Quantum Science and Technologies. The master, coordinated by the University of Barcelona, is a collaborative effort including 3 universities (UB, UAB and UPC) and 4 research centres (ICFO, BSC, IFAE and ICN2), working on quantum communication, computing, materials, sensing, and simulation.

DigiQ (Digitally Enhanced Quantum Technology Master),?a new European initiative coordinated by the University of Aarhus (DK), aims to drive transformation of the education ecosystem by introducing a number of educational innovations and a multinationa programme structure to prepare the workforce and talent for future quantum technologies. I is funded by a ?17.6 million grant over four years through the European Commission's Digita Europe Programme. Twenty universities from ten European countries willparticipate in DigiQ, including partners from the?Master in Quantum Science and Technology Barcelona

Contact Details:

Please contact us at frontiers@icfo.eu if you have any questions.