World Quantum Day 2023

ICFO joins in the celebration of the World Quantum Day, an international day to raise awareness about the importance of quantum physics and the quantum-enabled future that awaits us.

April 14, 2023

The World Quantum Day, celebrated on April 14th, is an initiative founded by quantum scientists and experts from more than 65 countries around the world, aiming at promoting the public understanding of Quantum Science and Quantum Technology.

The initiative gives visibility not only to the emergence of Quantum physics but also to the impact it will have on society in the future. Efforts focus on bringing awareness about quantum physics, quantum technologies, and the emergence of new quantum applications. Crucially the international day seeks to promote the field to new generations through innovative training programs that encourage and engage new students to choose this field of study.

In 2022, the World Quantum Day was officially launched with more than 200 organized events in +44 countries, in +193 cities, and in +17 different languages. This year, 2023, the initiative aims to reach an even wider audience to celebrate the different areas that quantum

science may constitute a fundamental pillar, such as quantum gravity, quantum plasmas, quantum optics, quantum information science, quantum computer science, quantum metrology, quantum engineering, quantum chemistry, quantum thermodynamics, quantum foundations, among others.

Fourteen of ICFO's twenty-six research groups are working in the area of Quantum Science and Technology. They cover diverse lines of research in this field, both theoretical and experimental, advancing in the development in quantum communications, quantum sensing and metrology, and quantum simulations, among others. ICFOnians are coordinating projects such as the Quantum Flagship program Quantum Secure Network Partnership (QSNP), Q-networks, Euro-QCI-Spain, Comunicaciones Cuanticas from the Spanish Ministery of Science and Innovation, OPTOlogic, DAALI, DYNAMITE. They are also active participants in other projects such as the Quantum Internet Alliance, Pasquans2, Quango, QUDICE, to mention a few.

We are now living the start of the second quantum revolution and it is hoped that by mid-century we will have achieved a much more thorough understanding of quantum physics and the plethora of applications it seems to offer. An exciting quantum-enabled future is awaiting us!