

# Newsletter TAKE PART IN

## QUANTUM. THE REVOLUTION IN ONE LEAP. THE NEW EXHIBITION OF INFN AND MUSE OPENS IN TRENTO



Quantum. The revolution in one leap was opened last 6 December. It is a new exhibition, designed and curated by INFN and co-produced by INFN and MUSE (Science Museum of Trento).

Designed for schools and the wider public, the exhibition is dedicated to quantum mechanics and the revolutionary impact it has had on physics, scientific progress, and society. "Quantum" tells the story of a theory that changed science and our lives, an idea that

overturned our way of seeing reality and of understanding the universe: counter-intuitive, explosive, fascinating. Designed by the Dotdotdot design studio, the set-up guides visitors along a visionary voyage across time that, starting from the atom, leads to the universe. Multimedia and interactive installations, exhibits, modern and historic research tools, and video projections accompany the visitor in discovering the wonderful world of quantum mechanics. The exhibition offers a journey in five stages that, starting from the 19<sup>th</sup> century conception of classical physics, leads to a total change in perspective in our vision of the universe at every level. You start with the stage dedicated to the macroscopic world described by classical physics – bodies and light are the stars of the story. You continue with the microcosmos, exploring the atom, where the classical theory goes into crisis and the need for a new vision of the physical world emerges: the idea of the quantum of light is born. At the heart of the exhibition, the public can experiment, through interactive installations, with the founding ideas of quantum mechanics. Then there's a surprising journey through the 20<sup>th</sup> century, recounting the famous debate between the great physicists and Nobel Prize winners Albert Einstein and Niels Bohr, the pioneering experiments that, from the 1970s, led us into the new millennium, to the 2022 Nobel Prize in Physics and the experiments that opened the way to quantum technologies, from cryptography to quantum computers. The show ends with the last stage dedicated to the cosmos, to the macroscopic manifestations of quantum mechanics, like the switching-on of stars, and the new conception of the universe, an unsettling reality, where everything is quantum, including the matter we're made of.

**Quantum. The revolution in one leap will be open to the public at MUSE in Trento until 15 June 2024.**