





"FBK Pioneers in Research" Summer School

Fondazione Bruno Kessler, Trento, Italy

8-12 September 2025

This immersive five-day program offers students a unique opportunity to explore cutting-edge research at **Fondazione Bruno Kessler**, with a special focus on **quantum technologies**—spanning quantum circuits, photonics, sensors, and more.

Participants will gain hands-on experience in advanced laboratories, including cleanrooms and characterization facilities, guided step-by-step through semiconductor device fabrication by experienced researchers. The program also includes dedicated activities in superconductivity and photonics, creating a full "quantum experience" that blends theory with real-world applications. Designed to bridge the gap between academic knowledge and scientific innovation, this summer school prepares students to become future leaders in the fast-evolving world of quantum technologies.



- Cleanroom micro-nanotechnologies: Follow the journey from silicon wafer to quantum device—explore sensor fabrication, chip testing, and how materials characterization advances quantum technologies.
- Quantum technologies: Learn how superconducting and photonic circuits drive quantum computing, and get hands-on with singlephoton sources and sensors in cutting-edge lab sessions.
- Social impacts and ethical issues: Explore the idea of a "quantum society," including global readiness, ethical challenges, governance, and the disruptive potential of emerging quantum technologies.



- Open to Master's students in Computer Science, Engineering, Physics, or Chemistry.
- The number of spots available is limited to 15.

Registration & fees

- Interested candidates should fill in the application form available at <u>researchpioneers.fbk.eu</u> where you will be asked to specify your university, faculty, and year of study.
- The registration fee is 220€, which includes accommodation for 4 nights at Villa S. Ignazio and lunch during the 5 days of the summer school.
- For participants who do not require accommodation, the registration fee is 110€.
- Candidates must upload:
 - An updated CV (maximum 2 pages)
 - A Cover Letter (maximum 1 page)
 - A 2-minute-video explaining why you decided to apply, what attracts you to the Pioneers Summer School, and why you believe you are a good fit for the program.

After submitting your application, all submissions will be reviewed to identify the most qualified candidates.

Important dates

- Application deadline: June 30, 2025
- Acceptance notice: July 10, 2025
- Fee payment deadline: July 24, 2025
- Final acceptance: July 31, 2025

For any questions, please contact us at **fbk-pioneers@fbk.eu** For more details and to apply, please visit our website: <u>researchpioneers.fbk.eu</u>

