

## Ph.D course in Theory and Numerical Simulation on the Condensed Matter

**Head of the Ph.D course:** Prof. Giuseppe Santoro

**Web site:** [Theory and Numerical Simulation on the Condensed Matter](#)

**Research project:** "Hybrid quantum and digital computation workflows for quantum machine learning and combinatorial optimization applications" in collaboration with Leonardo SpA.

Leonardo is a global high-tech player in Aerospace, Defence and Security, a global solutions provider and a trusted long-term partner of choice for governments, institutions and private customers, delivering cutting-edge and dual-use technologies. Headquartered in Italy, Leonardo operates on a global scale, through a well-rooted industrial presence in four domestic markets, an international commercial network and strategic collaboration agreements and joint ventures.

Leonardo is working on innovation across a huge array of disciplines every day, focusing mainly on microelectronics for advanced radar sensors, E/O and I/R technologies for surveillance and countermeasures, unmanned surveillance and environmental monitoring activities, advanced and innovative materials, software, cyber and systems competencies to design products and come up with effective solutions.

Leonardo has also defined a far-sighted innovation strategy that encompasses digital transformation and the adoption of cutting-edge technologies as a mean to strengthen the long-term competitiveness of the Group. Within this picture, it has recently launched the so-called Leonardo Labs: an international network of Corporate R&D Laboratories dedicated to advanced research and technology innovation in the following fields: Artificial Intelligence and Autonomous Intelligent System, Big Data Analytics, High Performance Computing, Electrification of Aeronautical Platforms, Materials and Structures and Quantum Technologies.

**Admission:** Academic and scientific qualifications + oral exam

**Beginning of the Courses:** 3 October, 2022

**Evaluation of academic and scientific qualifications:** 30 points

**Access to Oral Exam:** minimum mark of 21/30 on academic and scientific qualifications

**Evaluation of Oral Exam:** 70 points

**Total Evaluation:** 100 points

**Eligibility:** 70 points

**Deadline for online submission of applications:** 31 August, 2022

**Oral Exam:** to be defined - September, 2022

**The results of the oral exams and the final ranking will be notified by email.**