UNIVERSITÀ DEGLI STUDI
DELL'INSUBRIA

CORSO DI DOTTORATO IN FISICA E ASTROFISICA

Introduction to Quantum Technologies

The Second Quantum Revolution is unfolding now, exploiting the enormous advancements in our ability to detect and manipulate single quantum objects and triggering the development of the different Quantum Technologies.
New perspectives and opportunities are opening for researchers in any scientific disciplines.

The course *Introduction to Quantum Technologies,* issued by the PhD program in Physics and Astrophysics, in collaboration with the European Project QTEdu, is intended to give an introduction to the different quantum technologies to PhD students attending any scientific PhD program, not only to physicists.

The course will be held in English at distance in April-May 2021 once a week.
Supporting material to the lectures will be made available in advance, but preliminary self-study is not mandatory.

Program

1-2) Introduction to the formalism	*G. Benenti (Uninsubria)/M. Bondani (CNR-IFN)*	6 hours
3) Quantum Computing	*F. Chiarello (CNR-IFN)*	3 hours
4) Quantum Communication	*G. Vallone (Unipd)*	3 hours
5) Quantum Simulations	*S. Montangero (Unipd)*	3 hours
6) Quantum Metrology	*I. Degiovanni/M. Genovese (INRIM)*	3 hours
7) Quantum Algorithms	*D. Tamascelli (Unimi)*	3 hours
8) Quantum Machine Learning	*F. Tacchino (IBM)*	3 hours

To attend the course, please contact giuliano.benenti@uninsubria.it

The Coordinator
Prof. Giuliano Benenti

QUANTUM FLAGSHIP