

**Special Session on
Quantum Computing Algorithms for Science and Industry at
NUMTA 2023**



**Numerical Computations: Theory and Algorithms
The 4th international conference and summer school
June 14 – 20, 2023 – TUI Magic Life – Calabria, Italy**



The “Quantum computing algorithms for science and industry” special session at the NUMTA2023 conference aims to gather academic researchers and industry players to interact on fundamental and practically relevant questions focused on quantum computing and its applications.

Quantum computing potentially offers a paradigm shift in issues of scientific and technological interest. On the one hand, it allows addressing the study of the fundamental questions of theoretical physics, in particular condensed matter, quantum chemistry, and quantum thermodynamics. On the other hand, it would make it possible to cross insurmountable industrial barriers regarding optimization, data analysis, and high-performance computing.

In line with such objectives, we seek original or ongoing works which are unpublished and not currently under review by any other conference or journal.

Topics of interest include, but are not limited to:

- Quantum Algorithms for Noisy Intermediate-Scale Quantum Era,
- Parametrized Quantum Circuits,
- Quantum Error Correction and Mitigation,
- Quantum Machine Learning,
- Quantum Algorithms for Optimization Problems
- Quantum Annealing,
- Adiabatic Quantum Computation,
- Quantum Reservoir Computing,
- Quantum Learning Theory,
- Quantum Key Distribution,
- Data Encoding and Processing in Quantum Systems,
- Quantum Infinity Computing,
- Applications and Case Studies of Quantum Computing in Real Domains.

Special Session Organizers:

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