

QUANTUM

Simulation, Processing and Communication

Idex UCA^{JEDI} Academy 1 organizes a one-day workshop to discuss the state of the art and perspectives for quantum technologies in the areas of computing, simulation and secured communications.

Speakers:

Olivier Alibart
UCA / INPHYNI

Simon Martiel
ATOS / Bull

Denis Vion
CEA

Iordanis Kerenidis
U. Paris Diderot

Bruno Huttner
ID Quantique

Anthony Leverrier
Inria

InPhyNi

**Institut de Physique de Nice
Site Valrose**

Avenue Joseph Vallot, Nice

Information and registration: ucnlab.eu/qspc17

Workshop

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Program

- 9:00 Welcome coffee
- 9:30 Introduction to quantum information sciences: a spotlight on quantum photonics technologies
Olivier Alibert, UCA / InPhyNi
- 10:15 Quantum Computing: Opportunities and Challenges for High Performance Computing
Simon Martiel, ATOS / Bull
- 11:00 Quantum information processing with superconducting quantum circuits
Denis Vion, CEA
- 12:00 Buffet lunch
- 14:00 Quantum Machine Learning algorithms
Iordanis Kerenidis, U. Paris Diderot
- 14:45 Quantum-safe cryptography: answering the threat of the quantum computer on cybersecurity
Bruno Huttner, ID Quantique
- 15:30 Coffee break
- 16:00 Distributing secret keys with quantum continuous variables
Anthony Leverrier, Inria
- 16:45 Conclusion and discussions
- 17:30 End of day