

Quantum Architect in Integrated Photonics

About Quandela

Quandela is dedicated to the development of photonic technologies for the quantum computing era, and to the utilisation of this technology to bring about a paradigm shift in tackling real-world computational and communicational challenges in ways that classical computers cannot.

Founded in 2017 to commercialise its ground-breaking quantum light sources, Quandela components can now be found at the heart of quantum computing initiatives being developed by partner companies and research groups around the world. Our focus also encompasses the development of our own quantum computing platform and the in-house R&D of algorithms, protocols and applications for which our photonic technologies provide quantum advantage.

Quandela has a diverse, international team combining leading scientists in the fields of optics, semiconductor nanotechnologies, the foundations of quantum theory, quantum information theory and quantum computing, based at our facilities in Palaiseau and Massy in the Paris region.

The Role

Quandela is seeking a full-time research scientist to work on the conception, design and operation of integrated photonic circuits for the realization of optical quantum computing platforms.

You will be working primarily in the quantum algorithms team, based at Quandela's new facilities in the "Qampus" of quantum startups at Massy (a 30-minute train ride from central Paris).

The objectives are the development of tailored integrated photonic chips for multiphoton manipulation, and their interface with solid-state sources, optical modules and detectors for implementation of near-term NISQ applications. Key focus will be on optimising photonic circuit performance, and on scaling design and computational complexity.

This is an opportunity to make an impact on early applications of quantum information technology to "real-world" challenges. The role will involve interactions with both experimental and theory & software teams. It will also involve developing strategic partnerships and collaborations with providers, customer companies and academic research groups both locally and internationally.

Key Requirements

- Candidates should hold a doctorate in Physics
- Top-level publications in at least one of the following areas: quantum computing, quantum optics, integrated photonics
- Experience with integrated photonic circuits: architecture designs for quantum computing and communication protocols, hardware implementation and operation
- Strong oral and written communication and presentation skills
- Ability to take initiative and research effectively both independently and within teams

Desirable Skills

- Experience with interdisciplinary research
- Expertise in more than one of the key topics
- Programming knowledge and experience

Apply online



Apply online via the Quandela website: <http://quandela.com/apply-for-a-job>

Field:
Quantum
Information &
Computing,
Photonics,
Quantum Optics

Position:
Full-time /
Permanent

Location:
Palaiseau &
Massy (Paris area)
France