



Nord Quantique

3000 boulevard de l'Université, P1-ACET
Sherbrooke, QC, Canada, J1K 0A5
819-975-4654

Available position

Quantum Control Physicist (lev.3)
(permanent position)

Supervisor: Quantum Hardware Team Lead

Subordinate: None

Collaboration: Quantum Hardware team, Theory team, Design team

About [Nord Quantique](#)

At Nord Quantique, we strive to build impactful technology by relentlessly pushing our understanding of quantum science. We are an interdisciplinary team of scientists, engineers, innovators, builders, and enthusiasts on a mission to make quantum computing a reality. Our quantum processors are designed to reduce errors in quantum computation to facilitate long-term scaling toward fully-fledged quantum computers. We believe it is our responsibility to deliver this transformative technology for the greater good of society.

Located at the heart of the beautiful Eastern Townships ([Tourism Eastern Townships | Québec, Canada](#)) region in the province of Quebec, Canada, we develop our technology in the vibrant quantum ecosystem of Sherbrooke. Leaning on more than a decade of vertical integration of quantum hardware, we are leveraging a comprehensive pool of quantum technology and micro-electronic infrastructure to deploy our quantum computing technology.

Our current needs

We are scaling our activities alongside our quantum processors. Our team thrives on creativity and innovation, constantly pushing the boundaries of what is possible in quantum hardware design. We are seeking a skilled and detail-oriented **Senior Quantum Control Physicist** to join our Quantum Hardware team and contribute to the development of the next generation of high-performance quantum processors.

Working in close collaboration with experts at Nord Quantique, the chosen candidate will:

- Lead the development and implementation of **advanced quantum control protocols for bosonic qubits**.
- Improve the performance of quantum error correction strategies through **optimized control**.
- Collaborate with the Theory team to explore and validate **novel quantum error correction codes**.

- Work with the Design team to ensure hardware compatibility with advanced control techniques.
- **Benchmark and analyze QPU performance** to identify areas for improvement.

The selected candidate will operate within a highly dynamic environment and will be an essential member of the Quantum Hardware team, directly contributing to advancing our technology at its physical core.

Education and experience requirements :

- **PhD or equivalent industry experience** in quantum physics, electrical engineering, or a related field.
- **2+ years of experience** in quantum control and superconducting quantum circuits.
- **Industry experience** with a proven track record in interdisciplinary R&D teams, an asset.

Sought expertise and knowledge:

- Strong expertise in **microwave control of superconducting quantum circuits**.
- Knowledge of quantum error correction with bosonic qubits.
- Experience in **Python programming**.
- Intermediate knowledge of French, an asset

Sought profile:

- **Excellent analytical and problem-solving skills** to drive hardware optimizations.
- **Strong communication and collaboration skills** to work effectively with cross-functional teams.
- Ability to efficiently manage its time and **prioritize goals**.
- **Adaptability in a fast-paced research environment**, with a proactive and innovative mindset.
- **Passion for advancing quantum computing**.

Working at Nord Quantique

At Nord Quantique, you will be part of something special: working in a highly dynamic environment at the forefront of quantum technology development while benefiting from a vibrant ecosystem located at the heart of the Quantum Innovation Zone of the picturesque city of Sherbrooke. Our interdisciplinary team is laser-focused on solving grand challenges and making quantum computing a reality.

Nord Quantique is an equal-opportunity employer, and we are committed to building a diverse and inclusive work environment where all individuals can fulfill their aspirations

while being supported and heard. This also means that we offer flexible work schedules and adapt our methods for the well-being of every individual.

Moving to Nord Quantique

Nord Quantique offers extensive moving support, including help with immigration paperwork, with finding a place to live, with access to childcare and schools, even helping your partner to find a new job. We offer a relocation compensation package and competitive salaries.

Benefits: Group insurance (including dental care), virtual care, lifestyle spending account (all available after 3 months of service), French courses offered during work hours

Working language: English and/or French