

THE INSTITUT QUANTIQUE

Quantum sciences will produce technologies that will transform our society. The Institut quantique (IQ) of Université de Sherbrooke (UdeS) is at the heart of a dynamic ecosystem that is accelerating this quantum revolution.

■ Our Mission

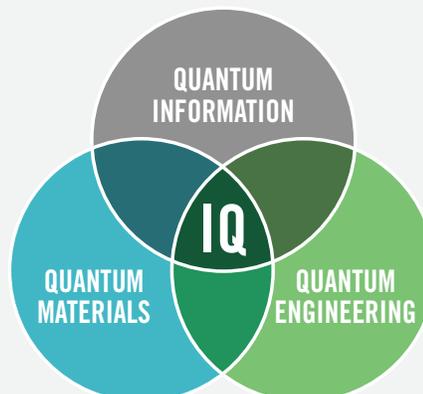
We place students at the center of research in an open and collaborative environment to accelerate the transition from science to quantum technologies. We train leaders with the skills and critical thinking essential to creating knowledge relevant to a changing society.

■ Living at the IQ

The Institut quantique provides a research environment that promotes values of collaboration, creativity, excellence, and inclusion. The ongoing conduct of scientific activities in the spirit of our values, as well as the presence of infrastructures for collaborative research, foster continuous development of knowledge, skills and the emergence of new collaborations.

SCIENCE AT THE INSTITUT QUANTIQUE

The IQ is one of the few interdisciplinary research institutes in quantum science. This provides an opportunity for our students and teaching staff to easily collaborate within the IQ to create links between each research axis. The IQ is thus recognized on the international level by this interdisciplinarity, which allows for research work of very high quality. These research activities are supported by a team of highly qualified professionals and technicians.



SCIENTIFIC ANIMATION



In line with our mission to train the next scientists' generation with sharp critical thinking skills, we have implemented a series of activities to help them acquire the skills needed to make an impact in today's fast-paced world.

SEMINAR SERIES

Scientific seminars are held on a regular basis to inform the IQ community about new developments in quantum science and technology. We regularly receive internationally renowned scientists who present their recent work.

HORIZON IQ

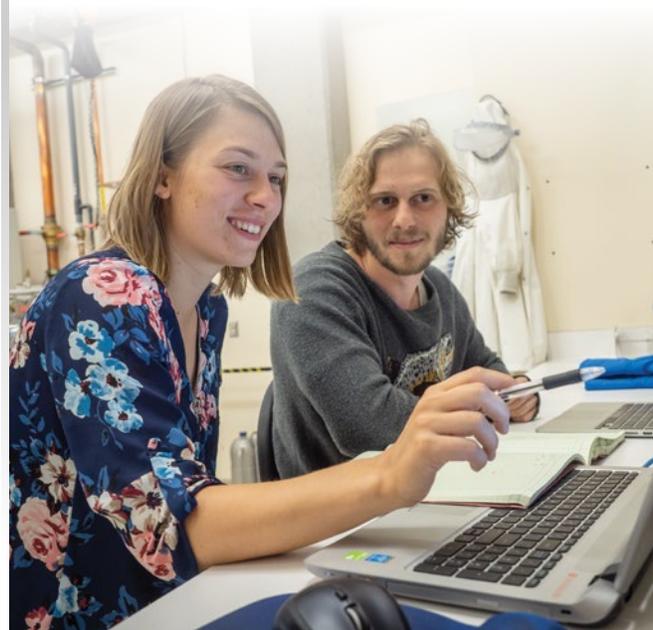
The Horizon IQ series aims to empower students by allowing them to organize an activity around a guest speaker of their choice, thereby broadening the range of role models and experiences available to them.

SCIENCE POPULARIZATION

The Institut quantique actively shares knowledge on quantum science with anyone who is fascinated by it or who believes they can benefit from it. The IQ wants to stimulate curiosity about quantum information, materials, and engineering for all age groups.

SUMMER SCHOOLS AND WORKSHOPS

The Institut quantique annually hosts one to two summer schools on specific aspects of quantum science, as well as workshops on more targeted topics.



ANNUAL SYMPOSIUM

The symposium is held annually and is an opportunity for members to exchange and learn more about the projects that have been carried out over the past year or that are currently in progress at the IQ.



OPPORTUNITIES FOR FINANCING

The Institut quantique supports its members' projects through various support opportunities:

- IQ Diversity Scholarship
- Entrepreneurship in Residence Program
- IQ Call for projects

CALL FOR PROJECTS

The call for projects' objective is to give our entire community an opportunity to receive funding for innovative research that goes beyond the usual framework. Any member of the IQ can submit a proposal and all proposals will be evaluated according to the same criteria.

STUDENTS

Q2

This student initiative aims to orient graduate training in quantum science and technology towards a better alignment between the academic environment and the job market. Thus, it offers help, support and information on employment in the quantum technology sector in Quebec by creating links with industry while promoting entrepreneurship.

DIPHUS

The main objective of this committee is to promote diversity in physics and science. More specifically, DiPhUS wishes to break the isolation of women and minorities who are pursuing studies in physics or working in this field, and to foster their sense of belonging to the physics department at the UdeS.

SOCIAL COMMITTEE

The social committee is a consultative instance that brings together the IQ community members. Its mandate is the organization and animation of activities to bring together the Institut quantique's members in an informal environment, with the aim of strengthening personal and professional relations between people.

RESEARCH FACILITY

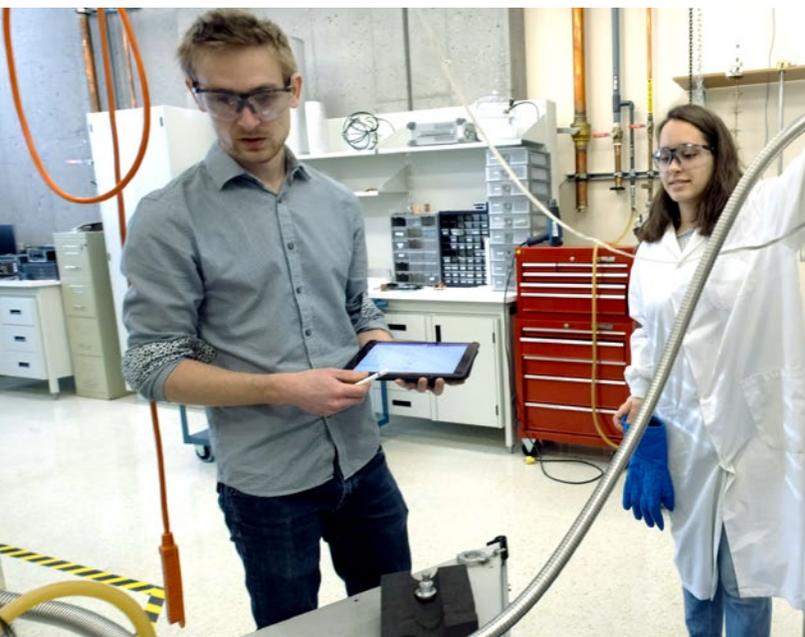


A professional and technical team of 24 highly qualified people is present at the IQ to support you in your research projects.



INSTITUT QUANTIQUE BUILDING

The Institut quantique building is unique and essential to the Université de Sherbrooke, a venue for interdisciplinary interactions in quantum science. It is a privileged place of collaboration designed to create an environment conducive to discovery and innovation. Considered as a research facility, it is an incubator of ideas based on collaborative laboratories. The main purpose of the building is to provide the entire quantum community with collaborative spaces dedicated to fostering the realization of multidisciplinary projects to accelerate the transition from quantum science to quantum technologies.



TECHNOLOGY PLATFORMS

The IQ has set up quantum technology platforms that are intended to be a place for the pursuit of excellence in scientific research, by providing IQ members and companies the necessary tools to carry out their work in a spirit of collaboration.



QUANTUM COMPUTING PLATFORMS

To promote research in quantum computing and its application as well as training and partnerships with companies, the IQ has set up a quantum computing platform. This platform is divided into several components, including the IBM Quantum Hub and high-performance computers. Each component has its own characteristics and offers specialized services to its users.

FABLAB QUANTIQUE

The Quantum FabLab (QFL) aims to be an open space for ideation, stimulating interdisciplinary collaboration between members of the IQ. It represents a shared platform for experimental research in quantum physics and engineering, taking advantage of the unique expertise of the IQ community in characterization of quantum materials and devices. The QFL consists of a quantum testbed equipped with state-of-the-art research tools capable of probing devices at the intersection of quantum materials and quantum computing, complemented by a complete mechanical workshop for the manufacture of high-precision custom parts.

INTEGRATED INNOVATION CHAIN

The IQ is part of the Integrated Innovation Chain, a junction between university research and the development of new products transferred to industry. It promotes contact between the university scientific community and the industrial process development sector. It is made of the Institut quantique, the Institut interdisciplinaire d'innovation technologique (3iT) and the Centre de collaboration MiQro innovation.

CHECKLIST

1 Students from abroad: To Do Before Arriving in Canada

- Get in touch with USherbrooke International (international@USherbrooke)
- Get a student visa or working visa
- Find out what are the travelling options to get to Sherbrooke
- Get help to find housing
([Kijiji](#), [Facebook](#), [Marketplace](#), [Un-logis](#), [résidences campus](#))
- Apply to UdeS

2 When you arrive in Canada

- Get a Social Insurance Number (SIN) at Service Canada
- Get a Canadian bank account
- Learn about Sherbrooke's public transit system
- Check your eligibility at the [Régie d'Assurance-Maladie du Québec \(RAMQ\)](#)

3 When you arrive at IQ

1 IQ staff in your department or faculty

- Get your keys and CIP
- Take your picture for the IQ website
- Set up your compensation
- Subscribe to mailing lists

2 Coordinator of your department

- Take possession of your office
- Get information specific to your academic background

3 Information technology support of your department

- Get your email and phone number
- Get your access to printers, VPN and Wi-Fi
- Get your room reservation access

4 UdeS Service Centre

- Get your student card
- Obtain your parking pass (if required)

5 Other

- Get your laboratory safety and first aid training
- Obtain specific training for your research projects (cryogenics, clean rooms, SIMDUT, etc.)
- Meet with your department's student life assistance representative (AVE)
- Obtain information on [student life services and support services](#) available at UdeS
- Get in touch with your student associations
- Consult the list of [scholarships](#) offered at UdeS