

Quantum Algorithms Institute

Quantum Computing Technology

Quantum computing is an emerging field, with countries across the globe racing to establish leadership positions. It offers the potential to exponentially grow problem solving capabilities in ways that reduce the amount of time and energy required. Quantum computers are also projected to be able to solve complex problems that classical computers cannot solve.

To learn more about quantum computing, visit:

<https://www.dwavesys.com/resources/videos>

<https://www.microsoft.com/en-ca/quantum/>

<https://www.ibm.com/quantum-computing/>

Building on our Strengths

B.C. is already home to a world class quantum computing cluster that is comprised of an experienced talent pool as well as world leading companies and universities. We will expedite the growth of this cluster by investing in areas where B.C. has strength, which include the development of quantum algorithms and software and the application of quantum technology to real world problems.

Building on past investments the Province has made in quantum computing, we are establishing a Quantum Algorithms Institute that will include the province's network of post-secondary institutes as well as industry partners. The Institute will be housed on the Simon Fraser University (SFU) Surrey campus and include partners at post-secondary institutes throughout B.C.

The creation of the Institute supports the B.C. government's larger vision of growing Surrey as a second downtown, which includes the development of an innovation corridor that spans from Surrey into the Fraser Valley. The Institute will demonstrate how initiatives will be developed in line with the Province's [Technology and Innovation Policy Framework](#), including:

- Growing globally competitive clusters that provide broad value for B.C.'s base industries;
- Helping B.C. companies scale up by helping advance commercialization efforts;
- Growing a future oriented talent pool so that British Columbians are first in line for good jobs; and
- Enabling the participation of regional centres in the initiative by structuring the Institute as a hub and spoke model where other universities, such as Thompson Rivers University, can take part.

The B.C. government will be working with our partners to implement the Quantum Algorithms Institute and grow B.C.'s position as a leader in quantum computing. Here, students will be able to obtain post-secondary qualifications in quantum computing, as well as gain access to quantum technologies where they can pursue applied research and focus on commercialization activities.