TIER 2 CANADA RESEARCH CHAIR – MATHEMATICS OF QUANTUM COMPUTING

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At the intersection of innovative education, cutting-edge research, and community outreach lies Simon Fraser University, Canada's top-ranked comprehensive university. With three campuses located in beautiful British Columbia's largest municipalities – Vancouver, Burnaby and Surrey - our students, faculty and staff are privileged to live, work, and play on the traditional unceded territories of the xʷməθkʷəy̓əm (Musqueam), Sḵwx̱wú7mesh Úxwumixw (Squamish), səl̓ilw̓ətaʔɬ (Tsleil-Waututh), q̓íc̓əy̓ (Katzie), kʷikʷəƛ̓əm (Kwikwetlem), Qayqayt, Kwantlen, Semiahmoo and Tsawwassen Peoples.

Consistently ranked as one of Canada's top employers, SFU is an institution whose strength is based on our shared commitments to diversity, equity and inclusion, and the pursuit of decolonization, indigenization and reconciliation. Diversity is an underlying principle of our Strategic Vision, which pledges SFU to "foster a culture of inclusion and mutual respect, celebrating the diversity reflected among its students, faculty staff and our community."

The Opportunity

The Department of Mathematics invites applications for an NSERC Tier 2 Canada Research Chair (CRC) in the Mathematics of Quantum Computing with an **effective earliest start date of July 19, 2021**. This Tier 2 CRC appointment opportunity is intended for exceptional emerging scholars in mathematical and theoretical aspects of quantum computing, at the rank of assistant or associate professor (or those who possess the necessary qualifications to be appointed to these levels). Normally, the candidate must have been an active researcher in their field for fewer than 10 years at the time of nomination. Applicants who are more than 10 years from their highest degree (and where career breaks exist, such as maternity, parental, or extended sick leave, clinical training, research delays due to the COVID-19 pandemic, etc.) may have their eligibility for a Tier 2 CRC assessed through the program's Tier 2 justification process; please see the CRC website for eligibility details.

SFU will nominate the hired faculty for a Tier 2 Canada Research Chair. This position is not contingent upon the applicant receiving a Tier 2 Canada Research Chair. However, alignment with the CRC nomination criteria will be part of the overall selection process. The position is subject to the availability of funding and to final approval by the University Board of Governors and the Tri-agency Institutional Programs Secretariat (TIPS). The Canada Research Chair is tenable for five years. The CRC appointment is renewable once, which is subject to the Chairholder demonstrating that they have achieved their objectives from their first term. Interested applicants are invited to review the initial appointment and chair renewal details of the CRC Program.

Qualifications

We seek applicants with a high-quality, high-impact, independent research program evidenced by a publishing record in leading scholarly journals and international conferences, and who are active in their scholarly community. Applicants should have demonstrated strength in undergraduate and graduate teaching and mentoring. The successful candidate will contribute to an active, innovative department with strong research groups, a thoughtful teaching environment, and an engaged departmental culture.

Candidates must have a PhD (or equivalent) in mathematics or theoretical computer science; postdoctoral or industrial experience is strongly preferred. Their research expertise must be in mathematical and theoretical aspects of quantum computing complementing existing departmental strengths in cryptography, coding theory, algorithms, algebra, number theory, discrete math, and probability. The position fits in with the "Enhancing our world through technology" theme of the 2016-2022 SFU Strategic Research Plan. The successful candidate will join researchers in the Quantum Algorithms Institute housed at SFU's Surrey Campus.

Candidates must have demonstrated strength in face-to-face or online teaching in mathematics, including at the undergraduate level, and a commitment to create inclusive learning environments for all students. The candidate should have interest and ability in curriculum development and involvement with professional teaching activities within the Quantum Algorithms Institute.

We seek a colleague whose professional track record illustrates our shared values of equity and inclusion, and a commitment to respectful interactions with students, faculty and staff.

To apply, applicants should provide:

- A cover letter addressing the full scope of the job requirements
- A curriculum vitae (include details of research and teaching, scholarly record, funding, and list of collaborations/partnerships)
- Four examples of refereed published scholarly work
- The proposed program of research including an outline of the proposed CRC research program over five years, an explanation of how the proposed research aligns with and advances SFU's 2016-2022 Strategic Research Plan, and a discussion of how this Chair would strengthen graduate training at SFU
- A teaching portfolio which includes evidence of teaching effectiveness, a discussion of experience with and/or understanding of inclusive teaching, mentoring, and how the candidate would meet the needs of equity-deserving students
- 4 reference letters, with one letter speaking to teaching ability

SFU recognizes that alternative career paths and/or career interruptions (e.g. parental leave, leave due to illness, research delays due to COVID-19) can impact research achievements and commits to ensuring that leaves are taken into careful consideration. Candidates are encouraged to highlight in their application how alternative paths and/or interruptions have impacted them. SFU also recognizes the value of mentoring and research training, outreach, professional service, and non-traditional areas of research and/or research outputs; demonstrated experience in increasing diversity in the previous institutional environment, and in curriculum, is also an asset. All applications should be submitted through MathJobs.org at https://www.mathjobs.org/jobs/list/17228 (Position ID: SFUQC).

SFU is an equity employer and encourages applications from all qualified individuals including women, persons with disabilities, visible minorities, Indigenous Peoples, people of all sexual orientations and gender identities, and others who may contribute to the further diversification of the university. SFU is committed to ensuring that no individual is denied access to employment opportunities for reasons unrelated to ability or qualifications. Consistent with this principle, SFU will advance the interests of underrepresented members of the workforce, ensure that equal opportunity is afforded to all who seek employment at the University, and treat all employees equitably. Candidates who belong to equity-deserving groups are particularly encouraged to apply.

Simon Fraser University encourages applications from all qualified applicants, however, Canadian citizens and permanent residents will be given priority.

SFU offers several benefits and services aimed at creating a more inclusive and accessible campus community for faculty, please see the Faculty Relations, Benefits and Service page for more details. SFU is also committed to ensuring that the application and interview process is accessible to all applicants; if you require accommodations or have questions about SFU benefits, services, accommodations policies, or equity considerations please contact the Specialist, Equity, Diversity and Inclusion in Faculty Relations.

The competition will remain open until **March 8, 2021 or until the position is filled.** Any general inquiries regarding this posting may be directed to Rachel Tong, Chair's Assistant, (she/her), mcs@sfu.ca.

Under the authority of the University Act, personal information that is required by the University for academic appointment competitions will be collected. For further details see the Collection Notice: http://www.sfu.ca/vpacademic/faculty_openings/collection_notice.html.