Stewart Blusson Quantum Matter Institute
THE UNIVERSITY OF BRITISH COLUMBIA

RESEARCH ASSOCIATE – Beamline Scientist

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The Stewart Blusson Quantum Matter Institute at UBC (SBQMI) is a world-leading venture into research of systems and phenomena explicitly involving quantum mechanics. One of its core areas of strength is research into the electronic properties of quantum materials with high-resolution photoelectron spectroscopy approaches, such as spin-, time-, and angle-resolved photoelectron spectroscopy (so-called ARPES).

The Research Associate – Beamline Scientist reports to the SBQMI Scientific Director and will support Principal Investigators and Senior Scientists who are researching novel quantum materials and structures by spin and time-resolved ARPES, participating in the design of experiments and implementing the research project. The Research Associate will also contribute to writing and publishing articles in top-tier journals, mentoring SBQMI students, and collaborating with other national and international academic institutions, government, and industry organizations. Other activities include attending conferences and workshops to gather and disseminate knowledge of advances in spectroscopy and quantum materials' research, and participation in writing and submission of grants to fund research activities.

Work Performed

Research

- Collaborate with the Members and Associate Members of SBQMI to define research strategy for the institute;
- Collaborate with the beamline scientists at the QMSC beamline at the Canadian Light Source in Saskatoon.
- Lead and conduct research on the spin-, momentum, and time-resolved electronic structure of quantum materials;
- Make recommendations regarding design and modification of research projects and resource needs related to the above research themes;
- Contribute to the preparation and writing of research proposals;
- Research and develop new experimental techniques that will increase and maintain scientific excellence; prepare reports on these, and other, research activities;
- Maintain records of research activities and outcomes; prepare official research reports and statistics to support SBQMI and UBC performance related metrics, and other university related administrative requirements.

Facilities Operation

- Lead the commissioning and development of the Spin-ARPES end station at the QMSC beamline at CLS.
- Provide support at the QMSC beamline to beamline scientists and users.
- Participate on relevant committees such as those determining project and space requirements, new projects, and redevelopment of existing space;
- Ensure that equipment and laboratories used in the course of experiments are well maintained, and the processes and procedures related to use of space and/or equipment are followed.

Qualifications

- PhD in Physics, specializing in advanced photoelectron spectroscopy of quantum systems;
- Minimum of 3 years of experience in a research, or research and development environment;
- Publications in reputable scientific journals and/or patents;
- Strong reputation for expertise in spin-, time-, and angle-resolved photoemission with continuous as well as ultrafast laser sources;
- Extensive experience in working at diverse Synchrotron facilities as lead user and/or user support, with focus on ARPES and Spin-ARPES;
- Demonstrated capacity to pursue independent research;
- Experience leading research projects;
- Experience supervising students or staff.

To apply, send your CV, with a cover letter to www.facultycareers.ubc.ca/38323

Salary will be commensurate with qualifications and experience. UBC offers a competitive benefits package including extended medical, dental, life insurance, and pension.

Equity and diversity are essential to academic excellence. An open and diverse community fosters the inclusion of voices that have been underrepresented or discouraged. We encourage applications from members of groups that have been marginalized on any grounds enumerated under the B.C. Human Rights Code, including sex, sexual orientation, gender identity or expression, racialization, disability, political belief, religion, marital or family status, age, and/or status as a First Nation, Metis, Inuit, or Indigenous person. All qualified candidates are encouraged to apply; however, Canadians and permanent residents will be given priority.