

**The Department of Physics & Astronomy and the Department of Chemistry
Faculty of Science
University of Manitoba
Winnipeg, Manitoba, Canada**

Position # 30381 (Quantum Frontiers)

The Department of Chemistry and the Department of Physics & Astronomy invite applications for a full-time tenured or tenure-track position at the Assistant or Associate Professor level, commencing July 1, 2022, or on a date mutually agreed upon. Salary and rank will be commensurate with experience and qualifications.

The Departments seek an emerging scholar with a commitment to excellence in teaching and research. Exceptional candidates at any level will also be considered. Outstanding candidates in any area of Physics or Chemistry will be considered, with particular emphasis on candidates who will complement or extend the departments' strengths. These strengths include but are not limited to nanomagnetism, light-matter interaction, *ab initio* modeling, transition-metal complexes, design and synthesis of novel materials for photophysical, biomedical, energy and other applications. The successful candidate will have a Ph.D. and preferably post-doctoral experience or other distinguishing attributes in Condensed Matter Physics, Quantum/ Computational Chemistry, Computational Materials Science, Quantum Materials or a related field.

Duties will include undergraduate and graduate teaching in Chemistry and Physics and graduate supervision, research, including the establishment of an externally funded research program, and service-related activities. The successful candidate will have a track record of high-quality scholarly research leading to peer-assessed publications; will either have, or demonstrate the potential to establish, an independent, innovative, scholarly, externally fundable research program; will have demonstrated strength in or strong potential for outstanding teaching contributions; and will exhibit evidence of the ability to work in a collaborative environment.

To enrich our departments and create role models for a diverse population of students, we particularly invite application from those who can support and enhance our diversity, including women, Indigenous Peoples, persons with disabilities and racialized persons, and those committed to a diverse environment.

Researchers at the University of Manitoba are supported by an extensive high performance computing infrastructure, including local GPU resources and on-site support staff, and also nationally through Compute Canada. Combined computational and theoretical modelling strengths in the two departments cover areas of materials, surfaces and nanoparticles, magnetic dynamics, heavy element chemistry, spin transport, catalysis, and spectroscopy. The Department of Physics & Astronomy currently has 22 full time tenured and tenure track faculty members and two Instructors, and offers a full range of both undergraduate and graduate programs in Subatomic Physics, Condensed Matter Physics, Astronomy and

Astrophysics and Biological and Medical Physics. Research groups in the Department are well established and host extensive research infrastructure which includes ultrafast spectroscopy and microscopy, Mössbauer Spectroscopy, physical property measurement, x-ray diffraction, and magnetic resonance. The Department of Chemistry currently has 19 full time tenured and tenure track faculty members and eight Instructors, and offers a full range of both undergraduate and graduate programs in Chemistry and Biochemistry. The Department has well-established and equipped research infrastructure which includes advanced X-ray diffraction, high-resolution mass spectrometry and NMR spectroscopy equipment housed in the Manitoba Chemical Analysis Laboratory (MCAL). The two departments have strong ties in research and teaching, and are supported by strong research links with other University of Manitoba departments and Faculties, including Computer Science, Biological Sciences, Mathematics, Statistics, the Clayton H. Riddell Faculty of Environment, Earth, and Resources, the Price Faculty of Engineering, the Rady Faculty of Health Sciences, and the Manitoba Institute of Materials (MIM) which supports the university's advanced microscopy and surface characterization equipment.

Further information about the Departments can be obtained from www.sci.umanitoba.ca/physics-astronomy and www.sci.umanitoba.ca/chemistry. Winnipeg is the largest city in the Province of Manitoba. The city has a rich cultural environment, including symphony, opera, dance, theatre, and ethnic festivals. The region provides ample opportunities for outdoor recreation in all seasons. Learn more about Winnipeg at winnipeg.ca.

The University of Manitoba is strongly committed to equity and diversity within its community and especially welcomes applications from women, racialized persons, Indigenous peoples, persons with disabilities, persons of all sexual and gender identities, and others who may contribute to the further diversification of ideas. All qualified candidates are encouraged to apply; however, Canadian citizens and permanent residents will be given priority.

If you require accommodation supports during the recruitment process, please contact UM.Accommodation@umanitoba.ca or 204-474-7195. Please note this contact information is for accommodation reasons only.

Applications including a curriculum vitae, a description of teaching philosophy, a summary of research interests, a three-page research plan and contact information for three references should be sent to QuantumTheoretician@umanitoba.ca (PDF files preferred). Please ensure to specify position number 30381 in the application. For further information contact the Search Committee Co-Chairs at QTinquiries@umanitoba.ca. Review of applications will begin August 30.

Application materials, including letters of reference, will be handled in accordance with the *Freedom of Information and Protection of Privacy Act*. Please note that curricula vitae may be provided to participating members of the search process.