

Assistant Professor – Theoretical Quantum Condensed Matter Physics

The Department of Physics in the Faculty of Arts & Science at the University of Toronto invites applications for a full-time tenure stream position in the area of Theoretical Quantum Condensed Matter Physics. The appointment will be at the rank of Assistant Professor, with an expected start date of July 1, 2024, or shortly thereafter.

Applicants must have earned a PhD degree in Physics or a related field by the time of appointment, or shortly thereafter, with a demonstrated record of excellence in research and teaching in Theoretical Quantum Condensed Matter Physics.

We seek candidates with the demonstrated ability to build a strong independent research program in computational quantum many-body physics. In this general area, we are especially interested in attracting candidates with expertise in computational approaches to quantum many-body systems, including but not limited to, quantum Monte Carlo, tensor network, density matrix renormalization group, dynamical mean-field theory combined with ab-initio calculations, and artificial intelligence (machine learning) methods. We also seek candidates whose research and teaching interests complement the existing strengths of the Quantum Condensed Matter Physics research cluster and will build bridges with other research clusters in the Department of Physics (see <https://www.physics.utoronto.ca/research>).

The successful candidate will be expected to pursue independent and innovative research at the highest international level and to establish an outstanding, internationally competitive, and externally funded research program; to actively engage in undergraduate and graduate teaching; and to contribute to the enrichment of undergraduate and graduate programs. Candidates are also expected to show evidence of a commitment to equity, diversity, inclusion, and the promotion of a respectful and collegial learning and working environment demonstrated through the application materials.

Candidates must provide evidence of research excellence, indicative of a developing research program that is at the highest international level, as demonstrated by publications in top-ranked and field-relevant academic journals or forthcoming publications meeting high international standards, a forward-looking research statement, presentations at significant conferences, awards and accolades, and strong letters of endorsement from referees of high standing.

Evidence of excellence in teaching will be demonstrated through teaching accomplishments as described in the teaching dossier, including a statement of teaching philosophy, sample course materials, and teaching evaluations or evidence of superior performance in teaching-related activities submitted with the application, and strong letters of reference. Other teaching-related activities may include experience as a teaching assistant, experience in curriculum development, participation in delivering successful workshops or seminars, student mentorship, or publications and/or presentations related to pedagogical innovation.

Salary will be commensurate with qualifications and experience.

The successful candidate will complement and have the opportunity to collaborate with the vibrant research groups in the [Department of Physics](#), and with the University of Toronto's growing group of researchers working in Quantum Science and Technology. Together with recent hires in quantum information science and quantum materials and existing quantum theorists and experimentalists, this new computational quantum many-body theorist will contribute to the strength of the quantum science cluster in the Department of Physics. The research setting at the University of Toronto is further enriched by the [Centre for Quantum Materials](#), the [Centre for Quantum Information and Quantum Control](#), and the [Quantum Stream in the Creative Destruction Lab](#). The

Canadian Federal Government is making a major nationwide investment in the [National Quantum Strategy](#), and the successful candidate may be eligible for this exciting new funding initiative.

All qualified candidates are invited to apply by clicking on the link below:

<https://jobs.utoronto.ca/job/Toronto-Assistant-Professor-Theoretical-Quantum-Condensed-Matter-Physics-ON/574967117/>

Applicants must submit a cover letter; a current curriculum vitae; a research statement outlining current and future research interests; two recent research publications or forthcoming publications; and a teaching dossier to include a teaching statement that describes teaching philosophy and teaching experience, sample course materials, and teaching evaluations or evidence of superior performance in relevant teaching-related activities as listed above. We seek candidates who value diversity and whose research, teaching and service bear out our commitment to equity. Candidates are therefore also asked to submit a 1-2 page statement of contributions to equity and diversity, which might cover topics such as (but not limited to): research or teaching that incorporates a focus on underrepresented communities, the development of inclusive pedagogies, or the mentoring of students from underrepresented groups.

Applicants must provide the name and contact information of three references. The University of Toronto's recruiting tool will automatically solicit and collect letters of reference from each once an application is submitted. Applicants remain responsible for ensuring that references submit letters (on letterhead, dated and signed) by the closing date. More details on the automatic reference letter collection, including timelines, are available in the [candidate FAQ](#).

Submission guidelines can be found at <http://uoft.me/how-to-apply>. Your CV and cover letter should be uploaded into the dedicated fields. Please combine additional application materials into one or two files in PDF format. If you have questions about this position, please contact Mr. Chris McGugan at chairsec@physics.utoronto.ca.

All application materials, including reference letters, must be received by the closing date of **December 14, 2023**.

All qualified candidates are encouraged to apply; however, Canadians and permanent residents will be given priority.

Diversity Statement

The University of Toronto embraces Diversity and is building a culture of belonging that increases our capacity to effectively address and serve the interests of our global community. We strongly encourage applications from Indigenous Peoples, Black and racialized persons, women, persons with disabilities, and people of diverse sexual and gender identities. We value applicants who have demonstrated a commitment to equity, diversity and inclusion and recognize that diverse perspectives, experiences, and expertise are essential to strengthening our academic mission.

As part of your application, you will be asked to complete a brief Diversity Survey. This survey is voluntary. Any information directly related to you is confidential and cannot be accessed by search committees or human resources staff. Results will be aggregated for institutional planning purposes. For more information, please see <http://uoft.me/UP>.

Accessibility Statement

The University strives to be an equitable and inclusive community, and proactively seeks to increase diversity among its community members. Our values regarding equity and diversity are linked with our unwavering commitment to excellence in the pursuit of our academic mission.

The University is committed to the principles of the Accessibility for Ontarians with Disabilities Act (AODA). As such, we strive to make our recruitment, assessment and selection processes as accessible as possible and provide accommodations as required for applicants with disabilities.

If you require any accommodations at any point during the application and hiring process, please contact uoft.careers@utoronto.ca.