

# Summer Undergraduate Research Experiences at the Electron Ion Collider

The Electron Ion Collider Canada collaboration (EIC Canada, <http://eic-canada.org>) invites applications from undergraduate students interested in summer research projects in experimental subatomic physics at the Electron Ion Collider.

The Electron Ion Collider (EIC) is a major new collider facility scheduled to be built on Long Island, New York, by the US Department of Energy, with the first collisions anticipated by 2030. At the EIC, polarized electrons will collide with polarized protons, polarized light ions, and heavy nuclei at luminosities far beyond what is currently available. Summer undergraduate research students involved in the early stages of this project will be well positioned to continue on to graduate opportunities in subatomic physics at institutions involved in the Electron Ion Collider.

The EIC Canada collaboration is coordinating the participation of the Canadian subatomic physics community in the EIC. We provide a single point of contact for summer undergraduate students interested in research projects at the EIC, which is the first step towards an application to the summer research program at one of the universities in the EIC Canada collaboration.

Investigators at the **University of Manitoba** (Deconinck, Gericke, Mammei) are active in electron polarimetry, electroweak reactions, semiconductor pixel detector technologies, and software infrastructure. Investigators at the **University of Regina** (Huber, Papandreou) focus on pion and kaon form factors, exotic spectroscopy, and calorimeter detectors. Investigators at **Mount Allison University** (Hornidge) work on pion form factors and simulations.

Summer students will gain skills in simulation of subatomic physics processes and detectors, in the analysis of large data sets, and in experimental techniques for detector prototyping and characterization. Our typical research environments are highly collaborative, with opportunities to work with researchers at other universities and research facilities in Canada and abroad.

For applicants interested in undergraduate research projects during the summer 2021 term, we ask that you submit a statement of interest, along with your CV and copies of your academic transcripts at the expression of interest form at <http://eic-canada.org/undergraduate-research/>. Funding will be offered to successful applicants.

Our collaboration affirms that diversity of experience, culture, and perspective is essential in scientific research. In particular, we encourage Black, Indigenous, People of Color, women, and other visible and invisible minorities to apply.



University  
of Manitoba



University  
of Regina

MountAllison  
UNIVERSITY