

# M.Sc. and Ph.D. Studentships in Experimental Nuclear/Particle Physics

One of the top 10 unsolved problems in physics is the nature of the strong force where quark confinement dominates. I.E. it is poorly understood how quark and gluon interactions give rise to the observed properties of mesons and nucleons. This has motivated an ambitious program in Deep Exclusive electron scattering reactions at Jefferson Lab, USA.



HMS @ Jefferson Lab Hall C

**STUDIES OF QUARK-GLUON STRUCTURE OF MESONS AND NUCLEONS.** In Deep Exclusive electron scattering reactions, the system responds coherently to the incoming probe and provides a clearer picture of the inner workings of QCD (the theory of strong interactions in the Standard Model). We lead several experiments which will take data with unprecedented accuracy and will measure some of these properties for the first time to better understand their underlying quark-gluon structure.

We are looking for grad students interested in helping with the commissioning of the newly-upgraded experimental apparatus, and taking a major role in our experiments on pion, kaon and nucleon structure. Research includes data taking and detector work in the USA, data analysis, simulations and graduate class work in Canada. Funding support is available to all successful applicants.



SHMS Heavy Gas Čerenkov Detector

For additional information visit [lichen.phys.uregina.ca](http://lichen.phys.uregina.ca) or contact:

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