



# Experimental High Energy Physics



## At the University of Toronto

### Opportunities for Graduate Studies

The University of Toronto has Canada's largest University-based research group in elementary particle physics and relativity, with a distinguished history of graduate education. Experimentalists and theorists at the University of Toronto are trying to find ways to move beyond the current particle physics paradigm. We have a number of exciting research positions available to graduate students starting in September 2008 and for undergraduate students from May-August 2008.



The experimental group, in association with the Canadian Institute of Particle Physics (IPP), plays a leading role in the ATLAS collaboration, which is constructing a general-purpose LHC detector in Geneva, Switzerland. The main aim of this research is to discover the Higgs Boson, thought to explain the origin of electroweak symmetry breaking. Furthermore, the group is actively involved in searches for new physics with ATLAS, such as Supersymmetry or Extra Dimensions. The Large Hadron Collider (LHC) is scheduled to begin operation at CERN in 2008. Toronto is also a member of the Canadian group taking on major design and construction responsibilities for a new long-baseline neutrino oscillation experiment, T2K, in Japan, scheduled to begin data-taking in 2009. The group's research priorities also include the CDF experiment at Fermilab near Chicago, studying the highest energy proton-antiproton collisions, and the ZEUS experiment, at DESY, Hamburg, which studies high energy electron-proton interactions.



**Toronto HEP Faculty Members:** David Bailey, Peter Krieger, John Martin, Robert Orr, Pierre Savard, Pekka Sinervo, Richard Teuscher, William Trischuk

**Contact information:** <http://hep.physics.utoronto.ca/>

*North America:* Prof. William Trischuk [william@physics.utoronto.ca](mailto:william@physics.utoronto.ca)

*Europe:* Prof. Richard Teuscher (at CERN) [teuscher@physics.utoronto.ca](mailto:teuscher@physics.utoronto.ca)

Information  
on graduate  
studies in  
Physics at the  
University of  
Toronto:

Graduate Chair's Office, Dept. of Physics,  
University of Toronto, 60 St. George St.,  
Toronto, Ontario, CANADA M5S 1A7  
Tel: (416)-978-2945 Fax: (416)-978-1547  
E-mail: [gchair@physics.utoronto.ca](mailto:gchair@physics.utoronto.ca)  
<http://www.physics.utoronto.ca/graduate/index.html>



***Applications to the graduate programme for the coming year are due January 31, 2008.***