MSc/PhD in Space Physics Data Analysis and Modelling

MSc and PhD positions are available in the Space Physics research group in the Department of Physics at the University of Alberta in Edmonton, Alberta, Canada. Students will be supervised by Prof. Ian Mann (imann@ualberta.ca), Canadian Research Chair in Space Physics from 2003-13. The Student stipends are available from a variety of grants held with the Canadian Space Agency and summer research positions may be available to the applicant in advance of starting a graduate program.

The Department of Physics offers courses and research opportunities in several disciplines, including Astronomy and Astrophysics, Computational Physics, Condensed Matter Physics, Cosmology and Gravity Physics, Geophysical Sciences, Global Geodynamics and Seismology, Particle Physics (Experimental and Theoretical branches), Plasma Physics and Space Physics. More information is available online at: http://uofa.ualberta.ca/physics/about-the-department

The successful applicant or applicants will undertake data analysis and modelling towards research problems in solar-terrestrial physics, magnetosphere-ionosphere coupling, and space weather. Students are anticipated to work with data from a variety of sources including: the NASA Van Allen Probes and THEMIS missions, Canada’s Cassiope/e-POP satellite, the ICI-4 suborbital sounding rocket, the CARISMA ground magnetometer network, and several high-altitude research balloon campaigns.

Applicants should be enthusiastic, have strong communication skills, and be comfortable working in a dynamic team environment. Experience or training in some or all of the following would be an asset: plasma physics, data analysis, digital signal processing, statistics, and IDL/Matlab. Demonstrated extracurricular research experience, e.g., research project, summer research position, etc. would be an asset.

Prospective Masters and PhD graduate students will have a University degree in physics, astrophysics, engineering, or a related discipline and a strong background and in electrodynamics and space physics. Students will be expected to complete a thesis based degree program and meet and program requirements including course requirements. Informal enquiries are welcome.

Applications for graduate study must be submitted through the Department of Physics: http://uofa.ualberta.ca/physics/graduate-studies