UNIVERSITY OF TORONTO
DEPARTMENT OF PHYSICS
Post-Doctoral Positions in Arctic Atmospheric Research

Applications are invited for two Post-Doctoral Fellowships in Arctic Atmospheric Research affiliated with the Probing the Atmosphere of the High Arctic (PAHA) project. Using measurements from the Polar Environment Atmospheric Research Laboratory (PEARL) at Eureka, Nunavut and measurements from other sites around the Arctic and the rest of the globe, the PAHA project is investigating the changing atmosphere of the Canadian High Arctic. This project also operates in association with the NSERC CREATE Training Program in Arctic Atmospheric Science.

One Post-Doctoral Fellowship is available for each of the following projects:

Composition Measurements – Measurements of atmospheric composition, made with UV-visible and Fourier transform infrared spectrometers at PEARL, are being used to investigate biomass burning and continental influence on the Arctic, greenhouse gases related to the carbon cycle, and ozone and related species. This PDF position will involve instrument operations; the collection, retrieval, numerical analysis of data; and interpretation of the measurements to address scientific questions related to long-range transport in the Arctic, the carbon cycle, and ozone depletion and recovery. This project is supervised by Prof. Kimberly Strong.

Satellite Validation – Satellite validation establishes the accuracy and reliability of satellite measurements through comparisons with well-characterized data sets. We are using the PEARL data set for validating current satellite missions focusing on trace gases and aerosol properties. This PDF position will involve conducting statistical comparisons between PEARL and satellite data sets (initially ACE, GOSAT and OSIRIS); employing innovative comparison methods; and collaborating with satellite science teams and other ground-based measurement sites. This project is supervised by Prof. Kaley Walker.

Both positions will be based within the Earth, Atmospheric, and Planetary Physics Group in the Department of Physics at the University of Toronto. Depending upon the development and interests of the candidates and the PAHA project, there may be opportunity for field work at PEARL. This would entail working in the High Arctic in remote conditions far from medical and technical resources.

Candidates should have a recent Ph.D. in atmospheric science, physics, chemistry, engineering, or a related field. Applicants should submit a curriculum vitae and a one-page statement indicating how they would expect to contribute to either of the above projects by addressing their suitability for the project based on their experience and research interests. Applicants should also arrange for two academic reference letters to be submitted independently. Applications and reference letters should be sent by e-mail in either PDF or DOC format to applications@candac.ca. Review of applications will begin on November 1, 2013 and decisions will be made by November 30, 2013. Appointments under this program are for two years.

We invite prospective candidates to visit the following websites for additional information:
Department of Physics: www.physics.utoronto.ca
PAHA and PEARL: http://www.candac.ca
CREATE-AAS: http://www.candac.ca/create/

The University of Toronto is strongly committed to diversity within its community and especially welcomes applications from visible minority group members, women, Aboriginal persons, persons with disabilities, members of sexual minority groups, and others who may contribute to the further diversification of ideas.