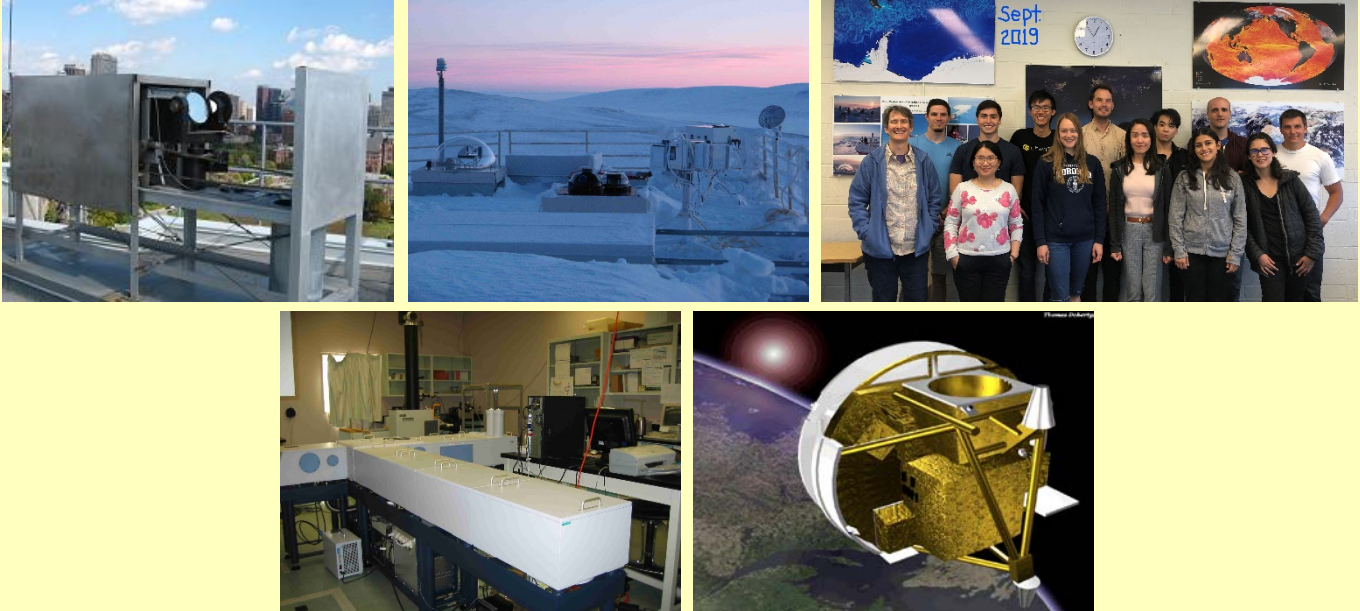# "Using Physics to Measure Atmospheric Composition"
Prof. Kimberly Strong
NSERC Summer 2020 Student Positions

The Atmospheric Physics group at the University of Toronto has an active program in remote sounding of the atmosphere from ground-based, balloon, and satellite platforms, along with supporting radiative transfer studies and laboratory spectroscopy. Our research deals with such topics as stratospheric ozone depletion, tropospheric pollution, and climate change. Understanding of the physical and chemical processes underlying these issues requires accurate and timely observations of atmospheric composition. My research group is involved in a wide variety of projects that use UV-visible and Fourier transform infrared (FTIR) spectrometers to measure the concentrations of trace gases in the atmospheres of Earth and Mars. We are looking for a summer student to participate in daily measurements at the University of Toronto Atmospheric Observatory (TAO) and to analyze data from TAO and from the Polar Environment Atmospheric Research Laboratory (PEARL) at Eureka, Nunavut.

The successful applicant will contribute to daily observations of infrared solar radiation for the purpose of retrieving concentrations of atmospheric trace gases. The student will gain experience operating FTIR spectrometers. In addition, they will be exposed to basic atmospheric physics and chemistry, and to the processing and interpretation of atmospheric science data.

If any of these projects are of interest to you, please feel free to contact Kimberly Strong (strong AT atmosp.physics.utoronto.ca) for details. Applicants should have have completed second year or higher, have an interest in experimental research, and have some experience with computers and programming.

More information can be found on the following WWW pages: