



## **Measurements of tropospheric species from the Atmospheric Chemistry Experiment Fourier Transform Spectrometer (ACE-FTS)**

C.D. Boone (1), **K.A. Walker** (1,2), G. Dufour (3), C.P. Rinsland (4), and P.F. Bernath (1,5)

(1) Department of Chemistry, University of Waterloo, Waterloo, Canada, (2) Department of Physics, University of Toronto, Toronto, Canada, (3) Laboratoire de Meteorologie Dynamique, Institut Pierre Simon Laplace, Palaiseau, France, (4) NASA Langley Research Center, Hampton, United States, (5) Department of Chemistry, University of York, Heslington, United Kingdom

The Atmospheric Chemistry Experiment (ACE) is a Canadian scientific satellite mission designed to perform remote sensing measurements of the Earth's atmosphere. The SCISAT-1 satellite, carrying the ACE payload, was successfully launched into a 650 km altitude, 74 degree inclination orbit on August 12, 2003. The primary instrument on-board SCISAT-1 is a high-resolution ( $0.02\text{ cm}^{-1}$ ) Fourier Transform Spectrometer (ACE-FTS) operating between  $750$  and  $4400\text{ cm}^{-1}$ . ACE-FTS uses solar occultation to determine profiles of atmospheric trace gas species, temperature and pressure down to 5 km. Examples of ACE-FTS results for tropospheric species such as methanol, formic acid, acetone, and peroxyacetyl nitrate (PAN) will be presented in this paper.