Date: February 1

Time: 11:00 AM

Location: Maryland Hall 110

Speaker: Dr. Theodore Shepherd

University of Toronto

Title:*"Fluid dynamical issues in middle atmosphere modelling"*

Abstract

Long regarded as a “niche” area of research, the middle atmosphere (stratosphere and mesosphere) is now emerging as an integral part of the atmosphere. The lids of both weather forecast models and climate models are being increasingly raised into the mesosphere, as it is recognized that “natural” upper boundary conditions improve the simulation of phenomena in the atmosphere below. However the spectrum of atmospheric motions becomes increasingly dominated by "unbalanced" phenomena such as gravity waves and inertial instability as thes altitude increases. Hence this model development is exposing our lack of understanding of some basic fluid dynamical phenomena. This talk will discuss a number of the current challenges in this respect.