

Global Change and Space Weather

- ★ The chemistry and physics of the troposphere and middle atmosphere, including production and loss mechanisms for environmentally important molecules e.g. ozone, using ground-based and satellite observing-systems
- ★ The dynamics of the middle atmosphere (20-110 km), including measurements and studies of atmospheric winds and waves, turbulence and related airglow parameters, using MF and Meteor radars, optical- and satellite-systems
- ★ The ionosphere (90-350 km) in the auroral zone and polar cap (convection, current systems, plasma waves, aurora borealis and australis), using ground-based radar, optical and magnetic measurements, and satellites
- ★ The earth's magnetosphere and its space weather driven by the solar wind, the magnetosphere-ionosphere interaction, using satellite-borne and ground-based instruments and computer modelling studies



Graduate Studies and Careers

The Institute of Space and Atmospheric Studies (ISAS) is a research unit of the University of Saskatchewan offering career opportunities for PDFs, Research Associates, Research Engineers, Visiting Research Scientists, and Graduate Students. Degrees may be awarded in the disciplines of "Physics", "Engineering Physics", or "Environmental Engineering". Research activities are based upon a diverse set of observational systems, including ground-based radar and optical devices, and satellite-systems. These systems and related software are developed in the Institute; there is emphasis upon experiment-design, tomography and radar-processing. The analysis of the data from these systems, and the elucidation of physical processes, leads to complementary theoretical and modelling activities.

CSA
Canadian Space
Agency-Space
Science

NSERC
Natural Sciences and
Engineering
Research Council

EC
Atmospheric
Science & Technology
Directorate

NRCan
Geological
Survey of
Canada

National and International Programmes

- ★ CAWSES-II (2009-2013) Climate and Weather of the Sun-Earth System, of SCOSTEP (Scientific Committee on Solar-Terrestrial Physics)
- ★ ILWS (International Living With a Star) programme
- ★ Satellites such as UARS (WINDII, HRDI), MOPITT, Odin-OSIRIS, TIMED, ACE
- ★ Canadian GEOSPACE MONITORING (CSA) and International SuperDARN programmes
- ★ CANDAC-PEARL (Canadian Network for the Detection of Atmospheric Change) Polar Environment Laboratory at Eureka
- ★ CEDAR (Coupling Energetics and Dynamics of Atmospheric Regions - U.S.) programme
- ★ SPARC (Stratospheric Processes And their Role in Climate)

Institute of

Space and

Atmospheric

Studies

Funding Available for well qualified graduate students. Apply to:
Dr. Jean-Pierre St.-Maurice, Chair
Institute of Space and Atmospheric Studies
University of Saskatchewan
116 Science Place
Saskatoon, Saskatchewan, S7N 5E2, Canada

For information:
<http://www.usask.ca/physics/isas>
e-mail: isas.office@usask.ca
Telephone: 306-966-6401
Facsimile: 306-966-6400