

SEMINAR NOTICE

*Department of Physics and Engineering Physics
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SPEAKER: Dr. Robyn A.D. Fiori, Research Scientist
Canadian Hazards Information Service of Natural Resources Canada

TOPIC: *Development of Space Weather Services to Inform
Maritime Users of Space Weather Events Affecting High
Frequency Radio Communication*

DATE: Tuesday, February 28th, 2023

TIME: 3:30-4:30 p.m.

PLACE: *Physics 103*

Abstract:

Space weather can affect high frequency (HF) radio communications relied on by maritime users. Impacts are worse at high latitudes where the ionospheric disturbances that affect these systems are both intense and more frequent. Development of a space weather service to warn maritime users when their HF radio systems are vulnerable to space weather requires the development of nowcast and forecast models for relevant space weather conditions. This presentation features the development of a climatological auroral absorption model which incorporates a 2013-2017 data set of hourly data from Natural Resources Canada's network of geomagnetic observatories and riometer stations. This model supplements existing models of polar cap absorption and shortwave fadeout to create a comprehensive ionospheric absorption model over the high-latitude region.