

# SEMINAR NOTICE

*Department of Physics and Engineering Physics  
University of Saskatchewan*

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**SPEAKER:** Dr. Levan Lomidze  
Department of Physics and Astronomy,  
University of Calgary

**TOPIC:** *The Earth's Ionosphere: Recent Observations and Modeling.*

**DATE:** Tuesday March 22nd, 2022

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

**PLACE:** *Physics 103*

## **ABSTRACT:**

The Earth's ionosphere is an ionized part of the upper atmosphere covering altitudes between about 60 km to beyond 1000 km from the surface. It plays an important role in radio and satellite communication and GPS navigation, and its study is vital for understanding near-earth space plasma environment. The ionosphere is a complex and dynamic system coupled to both neutral atmosphere and magnetosphere and is characterized by numerous unexplained phenomena and anomalies. They include, for example, seasonal and diurnal variations of ionosphere plasma density which do not fit into the framework of the basic theory of ionization. Common methods of studying the ionosphere are primarily based on in-situ and remote measurement, corresponding data analysis, and modeling. This presentation introduces the basics of the structure and dynamics of the ionosphere and provides some of the latest results of research obtained from recent satellite missions and advanced physics-based ionosphere modeling.