## **SEMINAR NOTICE**

## Department of Physics and Engineering Physics University of Saskatchewan

**SPEAKER:** Dr. Matthew Toohey

Department of Physics & Engineering Physics

**TOPIC:** Stratospheric aerosol, volcanic eruptions and climate

variability

**DATE:** October 5, 2021

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

Join Zoom Meeting:

 $\underline{https://usask\text{-}ca.zoom.us/j/96818469630?pwd\text{=}aGpiVUtjcEJmZzBqclZ2S042eGpiQT09}$ 

Join by Telephone:

Local Saskatoon Dial-in Number: (639) 638-7474

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Join by Video Conferencing Device (SIP):

96818469630@zoomcrc.com

Meeting ID: 968 1846 9630 Passcode: 07412447 Telephone Passcode: 07412447

## **Abstract:**

To produce accurate projections of future climate change, it is necessary to understand the origin of past climate variability. Large volcanic eruptions, and the stratospheric aerosol they produce, have been shown to be the primary cause of interannual-to-decadal scale climate variability during the 1000-year period before the industrial revolution. Their potential role in climate variability over longer timescales, including rapid transitions between glacial and interglacial conditions, is a topic of growing interest. In this talk I will review current understanding of stratospheric aerosol and its climate impact, and describe ongoing efforts at USask to reconstruct the history of stratospheric aerosol optical properties on various timescales based on proxy data, satellite observations and simple models.