

Earth, Atmospheric, and Planetary Physics Research Day

Wednesday September 11, 2024
Faculty Club, 41 Willcocks Street
University of Toronto

09:30	Welcome	Dylan Jones and Debra Wunch
Session chair: Javeria Rizwan and Anas Ali		
09:45	Learning Ocean Turbulent Heat Transport by Machine Learning	Juncheng Zhang
10:00	Deep Learning for Microseismic Signal, Earthquake Events Detection and Phase Picking	Mohammad Hossein Khosravi
10:15	An Examination of the Wrangel Island Sea Ice Thickness Dipole	Spencer Ross
10:30	Mid-Infrared Spectroscopy in Toronto and the High Arctic	Petra Duff
10:45	Coffee break (30 min)	
Session chair: Ramina Alwarda and Christian DiMaria		
11:15	Initial results from plume height calculations using InGaAs and InSb XCO	Javeria Rizwan
11:30	The Impact of Model Resolution on Wildfire Ozone Production	Anas Ali
11:45	Near-inertial echoes of ageostrophic instability in submesoscale fronts	Erin Atkinson
12:00	TBD	Anson Cheung
12:15	Lunch break (90 min)	
Session chair: Spenser Ross and Erin Atkinson		
13:45	Observation of Down-Plume Wildfire Emissions of NO ₂ , CO, and Formaldehyde Using TROPOMI Satellite Data	Tadhg Hearne
14:00	Using Dynamical Systems to Spot Heatwave-Related Blocking Highs / Methods from Dynamical Systems to Spot Extremes	Eylon Vakrat
14:15	Assessing Urban Methane Emissions with Satellite-Derived Enhancement Ratios	Jon-Paul Mastrogiacomo
14:30	Comparison of a bulk and a microphysical aerosol scheme in an Earth System Model	Luke Fraser-Leach
14:45	Coffee break (30 min)	
Session chair: Christian DiMaria and Erin Atkinson		
15:15	Application of segmentation methods for tectonic plate recognition in geodynamics models	Pejvak Javaheri
15:30	TBD	Michael Howorucha and Han Szeptycki
15:45	UV-Visible Spectroscopy in Atmospheric Trace Gas Detection	Kevin Joshy
16:00	Global and Regional CO ₂ Budget Analysis with GEOS-Chem	Ceren Demirci