

# SEMINAR NOTICE

*Department of Physics and Engineering Physics  
University of Saskatchewan*

---

---

**SPEAKER:** Chris Roth  
Head of Data Science, Preteckt

**TOPIC:** *Predictive Maintenance Using Physical Modelling and Machine Learning.*

**DATE:** Tuesday September 19<sup>th</sup>, 2023

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

**PLACE:** *Physics 103*

## **Abstract:**

How can you use your Physics or EP degree in industry to both make a living and make a difference? I'll share how I am doing this as Head of Data Science for Preteckt using the 16 years of experience I had working on the OSIRIS project with Profs Degenstein and Bourassa, together with my M.Sc. in Physics, as Head of Data Science for Preteckt.

Preteckt is a startup that uses vehicle sensor data (temperature, pressure, speed, etc) to create precision repair plans for our customers in the trucking and transit industries. In this seminar, I'll discuss some of the AI tools and Physical Models we've developed to detect problems in engines and after-treatment systems in both diesel and EV systems, and how we are using these tools to reduce costs and emissions. I'll also share what it is like to work with a startup, particularly in the context of working fully remote, and what the adjustment has been like transitioning from academia to industry.