



**Department of Mathematics, Statistics and
Computer Science
St. Francis Xavier University**



presents

Curvature invariants in Lorentzian geometry

by

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Abstract: Manifolds with an indefinite signature metric give rise to curvature invariants that behave differently than in the Riemannian setting. In this talk I will discuss some of these differences and give an overview of the recent progress that has been made towards the study of curvature invariants in four-dimensional Lorentzian geometry (spacetimes). By focusing on various degenerate classes of spacetimes, where invariants either vanish or are constant, we are able to explore the question: To what extent is the Riemann tensor characterized by its invariants?

Coffee and Donuts will be served before the talk in AX24A