

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

**Presents**

**A Gentle Introduction to Representation Growth**

**by**

**Shannon Ezzat, PhD**

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

**Monday, January 18 @ 2:15pm, Annex 23A**

Asymptotic group theory is a way of studying infinite groups by counting objects related to that group (e.g. subgroups, representations, “supergroups”) and then studying that sequence to give you information about the group itself. This talk will focus on counting representations (representation growth) of a certain family of infinite groups called finitely generated nilpotent groups.

An introduction to the topics of representations, zeta functions and finitely generated nilpotent groups will be given, and then we will discuss results and examples from representation growth, along with a discussion of the current state of the field of representation growth.