

# Lethbridge Number Theory and Combinatorics Seminar

Monday — February 6, 2017

Room: B660

Time: 12:00 to 12:50 p.m.

## Joy Morris

# Oriented Regular Representations

*Abstract:* An oriented graph is a digraph with at most one arc between any pair of vertices. We say that the action of a group on a set of points is regular if it is sharply transitive; that is, there is exactly one group element mapping any point to any other point. An oriented regular representation (ORR) for a group  $G$  is an oriented graph whose automorphism group is isomorphic to the regular action of  $G$  on the vertices.

In 1980, Babai asked which groups admit an ORR. I will discuss this problem, and present joint work with Pablo Spiga in which we showed that every non-solvable group admits an ORR.

**EVERYONE IS WELCOME!**

Visit the seminar web page at

<http://www.cs.uleth.ca/~nathanng/ntcoseminar/>



Pacific Institute *for the*  
Mathematical Sciences