Lethbridge Number Theory and Combinatorics Seminar

Monday — March 26, 2018
Room: B543
Time: 12:00 to 12:50 p.m.

Joy Morris

Cayley index and Most Rigid Representations (MRRs)

Abstract: For any finite group G, a natural question to ask is the order of the smallest possible automorphism group for a Cayley graph on G. A particular Cayley graph whose automorphism group has this order is referred to as an MRR (Most Rigid Representation), and its *Cayley index* is the index of the regular representation of G in its automorphism group. Study of GRRs (Graphical Regular Representations, where the full automorphism group is the regular representation of G) showed that with the exception of two infinite families and ten individual groups, every group admits a Cayley graph whose MRRs are GRRs, so that the Cayley index is 1. I will present results that complete the determination of the Cayley index for those groups whose Cayley index is greater than 1. This is based on joint work with Josh Tymburski, who was an undergraduate student here at the time.

EVERYONE IS WELCOME!

Visit the seminar web page at
http://www.cs.uleth.ca/~nathanng/ntcoseminar/

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