University of Lethbridge
Department of Mathematics & Computer Science

Number Theory & Combinatorics Seminar

Monday – April 15, 2013
Room: B660
Time: 12:00 to 12:50 pm

JOY MORRIS

(University of Lethbridge)

How big is the automorphism group of a generic circulant (di)graph?

A circulant (di)graph is a (di)graph that can be drawn with its n vertices equally spaced around a circle, in such a way that rotation by $360/n$ degrees is a symmetry. It is not hard to see that in the case of a graph, reflection is also a symmetry, so the automorphism group (the group of all of its symmetry operations) must contain the dihedral group of order $2n$.

I will present results showing that for almost all circulant (di)graphs, these are the only symmetries. I will then look at what we can say about the automorphism group of a circulant (di)graph that has more symmetry than this.

This will draw on work by Babai, Godsil, Dobson, Bhoumik, and myself.

EVERYONE IS WELCOME!

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