



Department of Mathematics and Statistics

COLLOQUIUM

Tuesday, November 1st, 2016

4:00 – 5:00 pm, Adel Mathematics Bldg., Room 164
(refreshments at 3:45)

Dr. Stephen E. Wilson

Semi-Transitive Orientations of Dart-transitive Graphs

Abstract: A semi-transitive orientation of a graph Γ is a digraph Δ , disjoint from its reverse, such that $\text{Aut}(\Delta)$ is transitive on the vertices and on the edges of Γ . If $\text{Aut}(\Gamma) = \text{Aut}(\Delta)$ then we say that Γ is 1/2-transitive (or 1/2-arc-transitive). These are graphs of interest to a lot of us.

But in this talk, I would like to explore the opposite direction: Given a graph whose group is known to be transitive on darts (directed edges), when does it have a semitransitive orientation? How many might it have? Can it have non-isomorphic orientations?

Algebra Combinatorics Geometry and Topology (ACGT) Seminar meets every Tuesday, 12:45 – 1:45 pm, AMB 146.

Applied Math Seminar (AMS) meets on Thursdays, 12:45 – 1:45 pm, AMB 164. Jim Swift will speak about pair-coupled oscillators this week.

Friday Afternoon Undergraduate Mathematics Seminar (FAMUS) meets Fridays, 3pm, AMB 164.