

## ALGEBRA/COMBINATORICS TALKS

University of Regina

Department of Mathematics and Statistics

- Speaker:** Dave Morris (University of Lethbridge)
- Title:** Some arithmetic groups that cannot act on the circle
- Date:** Friday, April 2, 2004
- Time:** 14:00
- Place:** Mathematics & Statistics Lounge (CW 307.18)

### ABSTRACT

It is known that finite-index subgroups of the arithmetic group  $SL(3, \mathbb{Z})$  have no interesting actions on the circle. This naturally led to the conjecture that most other arithmetic groups also have no interesting actions on the circle. A beautiful theorem of Etienne Ghys implies (roughly speaking) that the circle can be replaced with the line, and this allows us to translate the problem into purely algebraic terms: which arithmetic groups can be right ordered? This question remains open, and the talk will discuss what is known, including joint work in progress with Lucy Lifschitz that establishes a relation with the property of bounded generation.