School of Mathematics and Applied Statistics
2013 Colloquium Series

Title: Generalised polygons

Speaker James Parkinson (University of Sydney)

Time and Date: 3:30pm, Friday, 29 November 2013

Location: 6-210

Abstract: Generalised polygons are certain graphs that play an important role in Lie theory. They are the atomic building blocks of higher geometries called buildings. In this talk we give an introduction to this area of mathematics, with an emphasis on examples. We also discuss some recent results on automorphisms of generalised polygons. Our main aim is to provide some restrictions on how an arbitrary automorphism of a generalised polygon can act, particularly with respect to the important opposition relation in the polygon. One motivation for this investigation is towards the old conjectures surrounding the classification of flag-transitive finite polygons.

This is joint work with Beukje Temmermans and Hendrik Van Maldeghem.