

**School of Mathematics and Applied Statistics**  
**2013 Colloquium Series**  
University of Wollongong

**Title:** Spectral properties of  $C^*$ -algebras associated to groupoids

**Speaker:** Lisa Clark (University of Otago)

**Time and Date:** Friday 22 February 2013, 3:30pm

**Location:** Room 24.204

**Abstract:** Groupoids appear in a number of different branches of pure mathematics. In operator algebras, we associate a  $C^*$ -algebra to a groupoid so that properties of the algebra can be seen in properties of the groupoid. In this talk, I will begin by describing how a groupoid is a generalisation of the action of a group on a set. Then, I will describe how to associate a  $C^*$ -algebra to a groupoid and demonstrate how spectral properties of the algebra correspond with topological properties of the groupoid.