

**IMIA Operator Algebra Seminar**  
University of Wollongong

Title: A groupoid generalisation of Leavitt path algebras

Speaker: Lisa Clark (University of Otago)

Time and Dates: 3:30pm Thursday, 26 July 2012

Location: Room 8.G25

Abstract: Given a directed graph  $E$ , I will review the construction of the *Leavitt path algebra* of  $E$ . Then, given a suitable groupoid  $G$ , I will describe the groupoid algebra  $A(G)$  first defined by B. Steinberg in 2010. When  $G$  is the groupoid associated to a directed graph  $E$ ,  $A(G)$  is isomorphic to the Leavitt path algebra of  $E$ . I will then present versions of the Cuntz-Krieger and graded uniqueness theorems for  $A(G)$  and talk about how  $A(G)$  has proven useful in characterising simple groupoid  $C^*$ -algebras.

This is joint work with Jonathan Brown, Cynthia Farthing, Mark Tomforde, and Aidan Sims.