

IMIA Operator Algebra Seminar
University of Wollongong

Title: An introduction to graph C^* -algebras : Lecture 1

Speaker: David Pask (University of Wollongong)

Time and Dates: 3:30pm Thursday, 24 January 2013

Location: Room 15.113 (Access Grid Room)

Abstract: In this first of three lectures we will examine the definition and basic properties of the C^* -algebra associated to a directed graph. Whenever possible our approach will be non-technical, emphasising the interplay between the connectivity of the directed graph and the algebraic properties of the associated C^* -algebra.

We will begin by establishing notation and giving a brief background on operators on Hilbert space. This will allow us to motivate and describe the relations used to define the C^* -algebra, $C^*(E)$ associated to a directed graph E . We will consider some basic examples including the main motivating examples, the Cuntz and Cuntz-Krieger algebras, introduced in 1977 and 1980.

Once the introductory definitions are done, we will give the fundamental uniqueness theorems which play an important role in the development of graph C^* -algebras.