IMIA Operator Algebra Seminar
University of Wollongong

Title: Twisted Topological Graph Algebras

Speaker: Hui Li (University of Wollongong)

Time and Dates: 3:30pm Thursday, 6 December 2012

Location: Room 15.113 (Access Grid Room)

Abstract: In this talk we will discuss how to define the twisted C^*-algebra of a topological graph. Given a topological graph E, Katsura constructs a C^*-correspondence $X(E)$ and its C^*-algebra $\mathcal{O}(E)$. Our idea is to incorporate in Katsura's construction a 1-cocycle $\mathbf{S} = \{s_{ij}\}_{i,j \in I}$ relative to an open cover $\mathbf{N} = \{N_i\}_{i \in I}$ of the edge set E^1. We call the Cuntz-Pimsner algebra of the C^*-correspondence $X_{E,\mathbf{N},\mathbf{S}}$ the twisted topological graph algebra. For nice open covers of E^1, we describe twisted representaions of E which correspond to Toeplitz representations of $X_{E,\mathbf{N},\mathbf{S}}$.