

IMIA Operator Algebra Seminar
University of Wollongong

Title: Nuclear dimension of graph C^* -algebras

Speaker: Aidan Sims (University of Wollongong)

Time and Date: 3:30pm Thursday, 19 December 2013

Location: Room 39C.meeting room

Abstract: Winter and Zacharias introduced nuclear dimension for C^* -algebras in 2012 as a noncommutative analogue of topological covering dimension. By proving that nuclear dimension is well behaved with respect to direct limits, extensions and tensor products and that \mathcal{O}_∞ has nuclear dimension at most 2, they proved that every Kirchberg algebra has nuclear dimension at most 5. Subsequently Enders developed a technique for studying the nuclear dimension of crossed products by the integers and used this to show that in fact Kirchberg algebras have nuclear dimension at most 2, and those with torsion-free K_1 group have nuclear dimension 1. I will discuss recent joint work with Efren Ruiz and Mark Tomforde building on Enders technique to determine the nuclear dimension of purely infinite graph C^* -algebras.