

IMIA Operator Algebra Seminar
University of Wollongong

Title: Spectral triples and dynamics on C^* -algebras

Speaker: Bram Mesland (University of Warwick, UK)

Time and Dates: 3:30pm Thursday, 7 and 14 March 2013

Location: Room 39C. (Tea Room)

Abstract: In these talks I will sketch a framework for dynamics on C^* -algebras via KMS-states and the unbounded Kasparov product. Examples will come from quasi invariant measures on limit sets of groups acting on hyperbolic spaces, and from Cuntz Krieger algebras. It is useful to view the associated crossed product algebra as a groupoid C^* -algebra. The quasi-invariant measure naturally induces a 1 parameter group of automorphisms and a KMS state for this group. There is a natural unbounded Kasparov module for this structure, which can be used to define index maps on K-theory. These maps might be computable through suitable spectral triples on the limit set itself, via the unbounded Kasparov product.