



2007 Seminar Series



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Time: 3:00 PM

Room: BSE 2.102

Purely infinite C^* -algebras of real rank zero

Abstract: Kirchberg and Rørdam introduced an important class of algebras: the purely infinite C^* -algebras, motivated by a deep classification result of C^* -algebras, obtained by Kirchberg. Elliott's classification conjecture has been verified for a wide class of C^* -algebras of real rank zero ("zero dimensional non-commutative topological spaces"). We will present a recent joint work with Mikael Rørdam, to appear in *J. Reine Angew. Math. (Crelle's Journal)*, in which we characterize the real rank zero condition for a separable, purely infinite C^* -algebra by a K -theoretical condition together with a topological condition for the primitive spectrum of the C^* -algebra. Some interesting consequences of this result, including a pathology in the ideal structure of the (minimal) tensor product of two (non-exact) C^* -algebras, will be given.

A reception will follow the talk and will be held in BSE 2.102