

Probabilistic Operator Algebra Seminar

Organizer: Dan-Virgil Voiculescu

March 13 **Mikael Rordam**, University of Copenhagen

Title: *Popa's averaging property for automorphisms on C^* -algebras.*

In his study of the relative Dixmier property for inclusions of von Neumann and C^* -algebras, Popa introduced a property of an automorphism on a C^* -algebra, that I call the strong averaging property, and which resembles the usual Dixmier property of an automorphism. We give a characterization of automorphisms having this property, which for commutative C^* -algebras is the same as freeness. We show how this property of an automorphism, or of an action, leads to greatly simplified proofs and improvements of some known results about crossed product C^* -algebras.