

Probabilistic Operator Algebra Seminar

Organizer: Dan-Virgil Voiculescu

November 23 **Ian Charlesworth**, UC Berkeley

Title: *Distortion for multifactor bimodules*

I will discuss recent joint work with Marcel Bischoff, Samuel Evington, Luca Georgetti and David Penneys, where we study inclusions of finite von Neumann algebras with finite dimensional centres (multifactors). In this setting, new phenomena arise which are not present in the factor setting for example, even very well-behaved inclusions of finite multifactors need not admit a Jones tunnel, which is a crucial ingredient for Popa's uniqueness theorem for inclusions. As a result, such multifactor inclusions are classified only up to Morita equivalence by their standard invariant. I will introduce our notion of distortion, which is an invariant providing enough additional information to classify these inclusions up to isomorphism, discuss some key parts of our proof and other nice properties of distortion, and make some mention of the adjectives elided from the abstract.