

Probabilistic Operator Algebra Seminar

Organizer: Dan-Virgil Voiculescu

April 18 **Dimitri Shlyakhtenko**, UCLA

Title: *An inequality for non-microstates free entropy dimension for crossed products by finite abelian groups.*

For certain generating sets of the subfactor pair $M \subset M \rtimes G$ where G is a finite abelian group we prove an approximate inequality between their non-microstates free entropy dimension, resembling the Schreier formula for ranks of finite index subgroups of free groups. As an application, we give bounds on free entropy dimension of generating sets of crossed products of the form $M \rtimes (\mathbb{Z}/2\mathbb{Z})^{\oplus \infty}$ for a large class of algebras M .