Probabilistic Operator Algebra Seminar

Organizer: Dan-Virgil Voiculescu

March 3   **Mikael de la Salle**, CNRS Universite Lyon 1.

Title: *Strongly converging finite dimensional representations*

I will discuss the following property of a group Γ: there exists a sequence of finite-dimensional unitary representations such that the associated norm sequence on the group algebra converges pointwise to the norm in the reduced C^*-algebra $C^*_{\text{red}}(\Gamma)$. This implies that $C^*_{\text{red}}(\Gamma)$ is an MF algebra in the sense of Blackadar and Kirchberg: it embeds into a norm ultraproduct of matrix algebras. We therefore call this property purely MF. I will focus on examples and variants, and in particular show in detail why $SL_4(\mathbb{Z})$ is not purely MF, and why we do not know for $SL_3(\mathbb{Z})$. Based on a joint work with Michael Magee from Durham.