

Probabilistic Operator Algebra Seminar

Organizer: Dan-Virgil Voiculescu

September 28 **Dimitri Shlyakhtenko**, UCLA

Title: *Fractional free convolution powers.*

In this joint work with T. Tao, we consider the concept of continuous free convolution powers that was introduced by Bercovici -Voiculescu and Nica-Speicher, and related to the minor process in random matrix theory. In this paper we give two proofs of the monotonicity of the free entropy and free Fisher information of the (normalized) free convolution power in this continuous setting and also establish an intriguing variational description of the process.