# Probabilistic Operator Algebra Seminar

Organizer: Dan-Virgil Voiculescu

April 4     **Roland Speicher**, Saarland University

Title: *A dual and a conjugate system for q-Gaussians for all q.*

We provide a concrete formula for a dual system as well as for a conjugate system of $q$-Gaussians represented on the $q$-deformed Fock space. The crucial point is that this formula works in a uniform way, for all $q$ in the open interval $(-1, 1)$, provided that the dimension of the underlying Hilbert space is finite. Moreover using this formula, we prove that the non-microstates free Fisher information is finite for any $q$ with $-1 < q < 1$, which is an improvement on a previous result of Dabrowski. The talk is based on joint work with Akihiro Miyagawa, arXiv:2203.00547.