Probabilistic Operator Algebra Seminar

Organizer: Dan-Virgil Voiculescu

Monday, 9:00–10:30 am, to attend via Zoom email David Jekel (daj@math.ku.dk) remote

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Mar 2   **Kewei Pan**, University of Toulouse
Boolean entropy

In this talk, I will introduce a notion of Boolean entropy, which is parallel to the classic entropy and free entropy. Via the Large deviation principle for for certain random matrix models, we are able to give an explicit expression for the Boolean entropy in one dimension, and we can extend it to the multivariate case following the scheme of Voiculescu's definition for free entropy. Moreover, it turns out that this quantity satisfies similar properties to the entropy in classical and free settings. As a consequence, these results contribute to constructing the framework of universality of non-commutative probability theory.