

Title: Hypercontractivity on classical and quantum Boolean cubes.

Abstract: When $1 \leq p \leq q \leq \infty$ and μ is a probability measure, it follows from Hölder's inequality that the identity map from $L_q(\mu)$ to $L_p(\mu)$ is contractive. A mapping which is contractive in the opposite direction is said to be *hypercontractive*. In this talk we present a new approach, based on the Chevet-Saphar tensor norms, to prove hypercontractivity of Hermite operators on the classical and quantum Boolean cubes. This is joint work with Verónica Dimant and Daniel Galicer.