
DAVID KRIBS, University of Guelph
Private algebras in quantum information

The complementarity of finite-dimensional private and correctable subsystems in quantum cryptography and error correction is a central example of the interplay between system and environment duality in open quantum system dynamics. In this talk, I will discuss a generalized notion of private quantum subsystems at the level of von Neumann algebras and present a generalized complementarity theorem with correctable subalgebras in arbitrary dimensions. This is joint work with Jason Crann, Rupert Levene and Ivan Todorov.