
DAVID KRIBS, University of Guelph

Operator theory and distinguishing quantum states with LOCC

In this talk, I'll discuss my work with collaborators on a fundamental topic in quantum information: Given a known set of quantum states, when can two parties distinguish the states under the restricted and hybrid classical-quantum communication setting called local (quantum) operations and classical communication (LOCC). I'll show how we've been able to make use of some tools from operator theory and operator algebras to develop techniques that solve certain subproblems, and briefly discuss our other ongoing and related work. This talk is based on joint works with Comfort Mintah, Michael Nathanson, and Rajesh Pereira.