Department of Mathematics

University of Houston

Analysis Seminar

FRIDAY March 22, 2019

13:00-14:00 - Room 646 PGH

Speaker: Sarah Chehade (University of Houston)

Title: Inequalities in Quantum Information Theory and Some Conditions for Equality

Abstract: We discuss several important inequalities that are considered the backbones of Quantum Information Theory. Some of these inequalities are known as 'Strong-subadditivity' and the 'Data-processing inequality'. The goal is to understand the relationship and implications between these inequalities for a finite dimensional complex Hilbert space. Furthermore, we will consider concrete conditions for equality of the stated inequalities. If time permits, we will discuss generalizations and open questions related to these inequalities.