

GRADUATE SEMINAR

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Fidelity Preservation in C^* -Algebras

Monday, August 15, 3.00 PM
Math Lounge (307.20)

Abstract: Fidelity provides a measure of distance between quantum states, where a quantum state is defined to be a density operator on a Hilbert space. In quantum information theory, one is interested in the structure of positive trace-preserving linear maps that preserve fidelity for all pairs of states. In this talk, I will consider the concept of fidelity in a C^* algebra A , study some of its properties and characterize positive trace-preserving maps on A that preserve fidelity.