



MANHATTAN ALGEBRA DAY

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Quantum state transformations

Friday, December 6, 2013
CUNY Graduate Center, Room 4102
11:20am

Abstract:

Quantum gates perform unitary transformations of quantum states. Some non-quantum transformations can be realized by means of quantum gates and measurements. Which transformations can be exactly realized that way, and with what probabilities? Which transformations can be realized approximately? The analysis involves classical and modern algebra. For the sake of time and clarity, we will consider primarily the single-qubit case. The presentation builds on a joint work with Andreas Blass of the University of Michigan.