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Title: Quantum measurement with post-selection

Abstract:

In this talk, I will discuss the possibility of increasing the Holevo value when measuring with post-selection. By measurement with post-selection, we mean that some of the outcomes of the measurement are discarded, and then we work with the resulting states. Using the example of two mixed qubits, it will be shown that the mutual information with post-selection is strictly greater than their Holevo value. For such states, an increase in the Holevo value follows from the monotonicity property of the relative entropy.