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Choi-Defined Resource Theories

The resource theories of separable entanglement, non-positive partial transpose entanglement, magic, and imaginarity share an interesting property: an operation is free if and only if its renormalized Choi matrix is a free state. In this talk, I refer to resource theories exhibiting this property as Choi-defined resource theories. I demonstrate how and under what conditions one can construct a Choi-defined resource theory, and I prove that when such a construction is possible, the free operations are all and only the completely resource non-generating operations.