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(I) Quantum Resource Theories and Beyond

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Quantum resource theories are a powerful framework for the quantification of resourcefulness in the quantum world. They arise naturally whenever one has a restriction on what one can do on a quantum system. However, the idea behind them is very general, and can be successfully exported to non-quantum scenarios. After introducing quantum resource theories and their mathematical framework, I will present some situations in which we can learn something new from their application to a non-quantum setting, e.g. to statistical mechanics in arbitrary physical theories and to discrete dynamical systems.

Keyword-1

quantum information

Keyword-2

quantum resources

Keyword-3

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