

Critical review of measurement for multipartite entanglement: detection and quantification

ABSTRACT

Quantum entanglement is one of the fields in quantum mechanics. Recently, quantum entanglement becomes the heart of many tasks in quantum information such as quantum cryptography, quantum teleportation and quantum computing due to the capability it to compute data more efficient compare classical computer. Therefore, the measurement of entanglement become important to determine either the state is entangled or separable. The aim of this paper is to view all possible methods of measurement in term of detection and quantification for multipartite entanglement cases. The outcome of this paper is to classify the method of detection and quantification including summarize the criteria and advantage or disadvantage of each method.

Keyword: Entanglement; Detection; Measurement; Multipartite; Quantification