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Maximally Entangled Set of Multipartite Quantum States

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Abstract

Many applications of quantum information, such as quantum communication and quantum computation, rely on the possibility of several systems to be entangled. Thus, the qualification and quantification of entanglement is one of the central topics within quantum information.

In this talk I will focus on some of the above mentioned aspects of quantum information theory. First, I will show how the notion of maximally entangled bipartite systems can be generalized to the multipartite setting. Second, I will present a method for creating maximally multipartite entangled states.

References:

- [1] P. Facchi, G. Florio, G. Parisi, and S. Pascazio, Phys. Rev. A **77**, 060304 (2008).
- [2] A. J. Scott, Phys. Rev. A **69**, 052330 (2004).
- [3] W. Dur, G. Vidal, and J. I. Cirac, Phys. Rev. A **62**, 062314 (2000).
- [4] J. I. deVicente, C. Spee, and B. Kraus, Phys. Rev. Lett. **111**, 110502 (2013).
- [5] D. Goyenche and K. Życzkowski, Phys. Rev. A **90**, 022316 (2014).
- [6] L. Arnaud and N. J. Cerf, Phys. Rev. A **87**, 012319 (2013).
- [7] A. Borras, A. R. Plastino, J. Batle, C. Zander, M. Casas, and A. Plastino, J. Phys. A **40**, 13407 (2007).
- [8] I. D. K. Brown, S. Stepney, A. Sudbery, and S. L. Braunstein, J. Phys. A **38**, 1119 (2005).