Titulo: QUANTUM OPEN SYSTEMS. IMPLICATIONS OF THE BELL INEQUALITIES IN QUANTUM INFORMATION

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Resumo: In this work, it is studied the fundamental and conceptual character that is given to the quantum theory by the Copenhagen interpretation, wich leads to the comprehension and acknowledgement of essential concepts, such as: non locality, Bell inequalities, quantum entanglement, etc. These concepts are of great importance to the quantum information theory and this applications. Adicionaly it is analyzed the behavior of the open quantum systems using computational methods and numerical analysis. The proposed systems in this part of work are one-qubit and two-qbit decoherent systems. Finally conclusions are made about the implications of this kind of dynamics in terms of quantum information.