

## EPR Pair

The Einstein - Podolsky - Rosen (EPR) pairs plays a central role in many quantum protocols application such that as quantum communication and quantum teleportation. But due to interaction with the environment, an EPR pair can no longer be of help as it lose its entanglement and no longer serve as a useful quantum resource.

When EPR pair is a pair of qubits which are in a maximally entangled state. Due to their perfect quantum correlation, EPR pairs lie at the heart of many important proposals for quantum communication and computation, such as quantum teleportation.