Generation of SU(1,1) Intelligent States for the Motion of Two Trapped Ions

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Abstract: We propose a method for generating SU(1,1) intelligent states for the center of mass and relative motional modes for two trapped ions. In our scheme, only three laser beams are employed, and their directions are all the same as the direction of the two trapped ions' alignment. Under certain conditions, our desired states are obtained as the steady-state solution of the master equation of the system.

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