

Generation of Superpositions of Two Bloch States in an Ion Trap

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Abstract: We propose a scheme for the generation of superpositions of two Bloch states for a collection of ions. In the scheme the ions are trapped in a linear potential and interact with laser beams. Our scheme does not put any requirement on the Lamb-Dicke parameters.

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Key words: Bloch states, ion trap, Lamb-Dicke parameter

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