

Non-Interacting Bosons on an Optical Lattice Subject to a Time-Dependent Potential

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October 16, 2012

Abstract

We extend techniques used to measure observables on a system of non-interacted bosons under a time-independent trapping potential to the case of a time-dependent potential. This is accomplished by approximating the system's hamiltonian as a combination of its time-independent non-diagonal kinetic and time-dependent diagonal parts using a trotter approximation.

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