Title:	An efficient Space and Time saving algorithm for solving Time Dependent Schr¨odinger Equation using the (t,t') method
Authors:	Gugalia, Alkit (/jspui/browse?type=author&value=Gugalia%2C+Alkit)
Keywords:	Theoretical analysis Quantum Adiabatic Theorem Floquet Method New algorithm for
Issue Date:	31-Aug-2018
Publisher:	IISERM
Abstract:	The first part of the work focuses on the Merging dynamics of the Bose-Einstein Condensates in the presence of oscillating trap potentials. The dynamics is studied by using the Gross-Pitaevskii equation and the MCTDHB theory in the KH frame of reference. In the second part of the work, an algorithm is proposed which uses analytic expressions for block diagonalization and other trnasformations involved in the (t, t) method, thus reducing the memory storage and computational time required for performing such heavy calculations.
URI:	http://hdl.handle.net/123456789/967 (http://hdl.handle.net/123456789/967)
Appears in Collections:	MS-13 (/jspui/handle/123456789/914)

Files in This Item:

File	Description	Size	Format	
MS13143.pdf (/jspui/bitstream/123456789/967/4/MS13143.pdf)		4.62 MB	Adobe PDF	View/Open (/jspui/bitstream/123456789/967/4/M

Show full item record (/jspui/handle/123456789/967?mode=full)
(/jspui/handle/123456789/967/statistics)