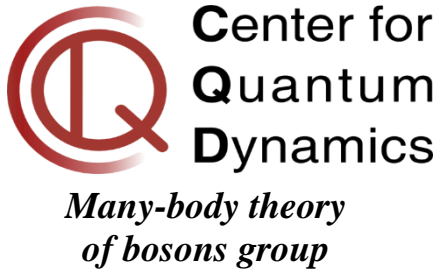


ЛАБОРАТОРИЯ ИНФОРМАЦИОННЫХ ТЕХНОЛОГИЙ

Четверг, 31 марта 2016 года в 14:00. Ком. 407



PD Dr. Alexej I. Streltsov
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Tutorial:

MCTDHB-Lab – Quantum Dynamics with a mouse-click-interface

MCTDHB-Lab package – is a free cross-platform (Unix/Mac/Windows) solver of the many-boson Time-Dependent Schrödinger Equation. In this tutorial we, first of all, learn how to install and operate with the MCTDHB-Lab. Secondly, we use it to solve the time-dependent and independent Schrödinger equation for several typical static and dynamical scenarios of ultra-cold atomic clouds trapped in external electro-magnetic traps. Finally, we visualize and analyze the obtained results in terms of figures and movies.

<http://www.qdlab.org>

MCTDHB Lab V1.5
Created by Alexej I. Streltsov & Oksana I. Streltsova

Project: /Users/tc-user/Alexej/TST/Template1

Hamiltonian Computation Analysis In&Out Package Help About us & MCTDHB

TDSE System $V(\mathbf{r}_j, t) = T + V(\mathbf{r}_j, t)$ $-\mathbf{r}_k |, t) = \text{Interpart. inter. Morb and Psi}$

nsional H-

Info Density Evolution of the density in Minkowski Space-Time representation

click

select

MCTDHB(1): rho(x,x*) evolution in Minkowski Space-Time representation

Time (t)

Space (X)

$T \approx \pi/J$
 $T = 2\pi/(E1 - E0)$