



MAFIA - the seminar you can't refuse

Controlling the state of a quantum particle in a box by moving the walls.

Juan Manuel Pérez-Pardo

Universidad Carlos III de Madrid

March 7 (**Thursday**), 2024

14:00–15:00

in T212

Fakulta jaderná a fyzikálně inženýrská ČVUT
Trojanova 13, 12000 Praha

Abstract: I will present a quantum mechanical system consisting in a free particle trapped in a one-dimensional box. The position of the walls of the box can be changed by an external force. This system is governed by the non-autonomous Schrödinger equation. I will show that for any given initial and target states, there exists a movement of the walls that drives the initial state arbitrarily close to the target state.

This is joint work with A. Balmaseda and D. Lonigro