

OPEN-LOOP CONTROL MODEL FOR FOCUSING OF COOLED ATOMS IN 2-DIMENSIONAL MODULATED OPTICAL FIELD

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ABSTRACT. We propose simple but realistic model of focusing cooled quantum particles in 2d modulated optical field. Calculating Lyapunov spectra we demonstrate that the type of attractor in the fixed points can be controlled by changing the parameters of control optical field. We support our conclusions by simulation for harmonic control.

Key words : focusing of cooled atoms, optical field, control.

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