

**S1-P.64****Features of Stimulated Atomic–Molecular Conversion with the Formation of Heteronuclear Molecules in Bose–Einstein Condensates**

A.P. Zingan¹ and P.I. Khadzhi²

¹*Dniester State University /Physics and math's, Lecturer, Tiraspol, Moldova*

²*Institute of Applied Physics /Physics and math's, Professor, Kishinev, Moldova*

The dynamic of coherent atomic-molecular conversion assisted by two Raman laser pulses is investigated in the frame of Gross-Pitaevskii equation. We have obtained the nonlinear equation for the production rate of heteronuclear molecules depending on the initial densities of particles and phase difference. It is shown that the conversion has the periodical and aperiodical regimes. The amplitude and period of oscillations of the molecular density is defined by the initial conditions.