Time-dependent Hamiltonian identification ALEXEI GOUN, Postdoctoral researcher — It is demonstrated that the time dependence of the Hamiltonian operator can be extracted by measurement of the evolution operator of the quantum system for a set of control parameters. For the case where the time dependence is weak and can be treated as a perturbation it is possible to express the inversion procedure in an analytic form. In the case of general time dependence, the iterative procedure is developed and its stability is analyzed.