



SFB/TRR 21 - Seminar

10. November 2011, Ulm

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(TU Wien, Atominstitut)

Optimal Control and Stochastic Optimization in Atom Chip Experiments

Experiments have been performed in our group using an experimental feedback loop which allows the stochastic optimization of experimental parameters with the help of a genetic algorithm. Furthermore, optimal control has been used to efficiently create a population inversion between first excited and radial ground state of a 1d Quasicondensate in a magnetic Atom Chip trap, allowing to create correlated atom beams. I will present prospects for the use of these techniques in our experiments, and discuss the possibility of combining them.

10. November 2011, 11:00 Uhr

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