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Control for Schroedinger operators on tori

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(Submitted on 7 Jun 2011)

A well known result of Jaffard states that an arbitrary region on a torus controls, in the L2 sense, solutions of the free stationary and dynamical Schroedinger equations. In this note we show that the same result is valid in the presence of a smooth time-independent potential. The methods apply to continuous potentials as well and we conjecture that the L2 control is valid for any bounded time dependent potential.

Comments:	2 figures
Subjects:	**Analysis of PDEs (math.AP)**; Systems and Control (cs.SY); Mathematical Physics (math-ph); Optimization and Control (math.OC)
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