

Simone Montangero

Ulm University
Albert-Einstein-Allee 11 - 89069 Ulm, Germany
simone.montangero@uni-ulm.de

Control of quantum phase transition dynamics

S. Montangero, T. Calarco

We review recent developments of the optimal control of many-body quantum systems and introduce the concept of the complexity of a control task. The experimental verification of an optimal controlled quantum phase transition crossing in cold atoms in optical lattices is presented.