

Abstract Submitted
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Quantum quenches and off-equilibrium dynamical transition in the infinite dimensional Bose Hubbard model GIULIO BIROLI, BRUNO SCIOLLA, IPhT CEA Saclay — We study the off-equilibrium dynamics of the infinite dimensional Bose Hubbard Model after a quantum quench. The dynamics can be analyzed exactly by mapping it to an effective Newtonian evolution. For integer filling, we find a dynamical transition separating regimes of small and large quantum quenches starting from the superfluid state. This transition is very similar to the one found for the fermionic Hubbard model by mean field approximations.

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