Housekeeping heat and work in out of equilibrium quantum systems

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Abstract

Previous works (T. Speck, U. Seifert, J. Phys. A: Math. Gen. 38 (2005) L581-L588) suggest that
the process of keeping a system (in contact with a thermal bath) in a out-of-equilibrium target state
ρ_s $can be achieved by simply restoring the heat dissipated by the system in the thermal bath. Here we treat this problem forma$
$1306:4352v2(2014)), we prove that this is possible when the state$ ρ_s $commutes with the local Hamiltonian of the system$ $H\_$

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