

Abstract Submitted
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Nonequilibrium Kubo formula of a finite conductor connected to reservoirs obtained by the Keldysh formalism TATSUYA FUJII, Inst for Solid State Physics, Univ of Tokyo — We show that the Keldysh formalism of the density matrix of a finite conductor attached to reservoirs has the MacLennan-Zubarev form. We point out that the Keldysh formalism describes the irreversible processes and the steady-state features of time-correlation functions. We find that the MacLennan-Zubarev form of the density matrix gives rise to a generalization of the Kubo formula into the nonequilibrium case. Based on it we propose a nonequilibrium identity between differential conductance, the noise power and the shot noise.

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