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Allowed charge transfers between coherent conductors driven by a time-dependent scatterer ALEXANDER ABANOV, Stony Brook University, DMITRI IVANOV, Ecole Polytechnique Fédérale de Lausanne — We derive constraints on the statistics of the charge transfer between two conductors in the model of arbitrary time-dependent instant scattering of non-interacting fermions at zero temperature. The constraints are formulated in terms of analytic properties of the generating function: its zeroes must lie on the negative real axis. This result generalizes existing studies for scattering by a time-independent scatterer under timedependent bias voltage. We discuss the meaning and possible extensions of our results.

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