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Elementary Events of Electron Transfer in a Voltage-Driven Quantum Point Contact MIHAJLO VANEVIC, YULI NAZAROV, WOLFGANG BELZIG, Universität Basil — We find that the statistics of electron transfer in a coherent quantum point contact driven by an arbitrary time-dependent voltage is composed of elementary events of two kinds: unidirectional one-electron transfers determining the average current and bidirectional two-electron processes contributing to the noise only. This result pertains at vanishing temperature while the extended Keldysh-Green's function formalism in use also enables the systematic calculation of the higher-order current correlators at finite temperatures.

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