# Full Counting Statistics in Dissipative Quantum Transport: Recent Achievements

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**Abstract**

In the recent past, nonequilibrium path integral techniques combined with methods of dissipative quantum mechanics and of integrable quantum field theory made possible to calculate the full counting statistics (i.e. the generating function for all cumulants) of the quantum transport of charge through barriers in a variety of different physical situations. These include supercurrent in Josephson junctions, charge transport in coherent conductors, and tunneling of integer charge (electrons) or fractional charge (Laughlin quasiparticles) in one-dimensional quantum impurity systems. At symmetry points of these systems, the entire regime from weak to strong tunneling is accessible in analytic form for any temperature and voltage. In the talk, recent advances in this field are reviewed.