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### **Full Counting Statistics in Mesoscopic Systems**

Full counting statistics (FCS) has emerged as a key concept to understand quantum transport in mesoscopic systems like heterostructures, quantum wires, and quantum dots. The knowledge of the FCS not only enables to predict all measurable zero-frequency quantities accessible via charge detection, but also allows to identify the elementary transport events and the correlations between them. We demonstrate the concept of FCS for a standard quantum point contact between normal and/or superconducting leads under dc- and ac-bias. Finally we show that the concept of FCS applied to time-resolved current measurements can be only understood by a proper account of the quantum projection postulate.

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