

Differential-Phase-Shift Type Quantum Key Distribution

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Quantum Key Distribution (QKD) might be the first application of quantum mechanics in individual quanta level. Here I will provide an introduction to a particular type of protocols, differential-phase-shift type QKD protocols, and take a little look into their security. After constructing a theoretical frame, we can move on to the practical issue, namely, experiments and technological challenges. Finally we can discuss about the advantages and the disadvantages of each protocol, and then think about the future prospect.