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Author Jin lin Jiang
Author's Email Address No Public.
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Abstract
1976, the public key cryptosystem based on one way function was proposed by Diffie and Hellman. Since then, there are many cryptosystems have been proposed such as RSA(based on factoring problem)、DSA (based on discrete logarithms problem) and ECC(based on elliptic curve discrete logarithms problem). Since 1994, Shor proposed quantum computing algorithms to solve factoring problem in polynomial time, quantum computing has become a hot subject for modern cryptography. Recently, many quantum identification schemes based on quantum mechanics or quantum computing algorithm are proposed. Therefore, we firstly review and study some famous quantum identification schemes and then analyze them from their theory, security advantages, and shortcomings. However, we find that many quantum cryptosystem about key distribute are assumed in noise-free quantum channel. In fact, this assumption is not reasonable; a quantum identification scheme based on quantum teleportation is proposed to overcome above problem in this paper.
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